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# THE UNITED STATES OF AMERICA

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UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

March 14, 2000

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM  
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OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT  
APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A  
FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: 60/116,729

FILING DATE: January 22, 1999

PCT APPLICATION NUMBER: PCT/US00/01457

By Authority of the  
COMMISSIONER OF PATENTS AND TRADEMARKS



*P. R. Grant*

P. R. GRANT  
Certifying Officer

**PRIORITY  
DOCUMENT**

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09/684,403 :A65

A/P/ROC

01/22/99  
JC408 U.S. PTO

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Attorney's Docket No. 22947.00200

JC542 U.S. PTO  
60/116729  
01/22/99

NEW PROVISIONAL PATENT APPLICATION TRANSMITTAL

Honorable Commissioner of Patents and Trademarks  
Box 100  
Washington, D.C. 20231

SIR:

Transmitted herewith for filing is the provisional patent application of Inventors:

Sashidhar P. Reddi, 135 S. 19th Street, Apt. 1611, Philadelphia, PA 19103

Title: METHOD AND SYSTEM FOR BUYER INITIATED AGGREGATING OF BUYERS TO OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES

CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this New Application and the documents referred to as enclosed herein are being deposited with the United States Postal Service on this date January 22, 1999, in an envelope bearing "Express Mail Post Office To Addressee" Mailing Label Number EM500427058 US addressed to: Box Provisional Patent Application, Commissioner, US Patent & Trademark Office, 2011 Jefferson Davis Hwy., Washington, D.C. 20231-0002.

Rebecca M. Klits  
(Name of Person Signing)

*Rebecca M. Klits*  
Signature

Enclosed are:

- The papers required for filing date under 37 C.F.R. § 1.53(b)(2):
- 1. 14 Pages of specification (including claims);
  - 1. 11 Sheets of drawings.
  - 1. ☒ formal
  - 1. ☐ informal
  - 2. ☐ Power of Attorney
  - 3. ☐ Assignment of the invention to
  - 4. Fee Calculation
    - Provisional Filing Fee . . . . . \$150.00
  - 5. ☒ Small Entity Statement - verified statement enclosed (unsigned)  
50% Filing Fee Reduction (if applicable) . . . . . \$75.00
  - 6. Other Fees
    - Recording Assignment [\$40.00] . . . . . \$
    - Other fees
    - Specify . . . . . \$
  - Total Fees Enclosed . . . . . \$75.00
  - 7. Payment of Fees
    - Check(s) no. in the amount of \$ enclosed.
    - ☒ Charge Deposit Account No. 03-3821 in the amount of \$75.00 referencing Attorney Docket No. 22947.00200
    - A duplicate of this transmittal is attached.
  - 8. ☒ Authorization to Charge Additional Fees
    - The Commissioner is hereby authorized to charge any additional fees (or credit any overpayment) associated with this communication and which may be required under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 03-3821 referencing Attorney Docket No. 22947.00200. A duplicate sheet is attached.
  - 9. ☒ Return Receipt Postcard
  - 10. ☐ Other: Specify

Respectfully submitted,

CROSBY, HEAFEY, ROACH & MAY  
Professional Corporation

By: *Adam H. Tachner*  
Name: Adam H. Tachner  
Registration No. 40,343

Dated: January 22, 1999

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Transmittal - New Application  
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**METHOD AND SYSTEM FOR BUYER INITIATED AGGREGATING  
OF BUYERS TO OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES**

**Inventor: Sashidhar P. Reddi**

**BACKGROUND OF THE INVENTION**

**1. Field of the Invention**

The present invention relates generally to electronic commerce and more particularly to the formation of online communities to initiate the purchasing of products that are generally not available in the marketplace at reasonable prices.

**2. Description of the Related Art**

There are clearly significant advantages to having greater purchasing power. Vendors offer bigger discounts, better customer service, and are more willing to make changes to their product offering to suit buyer demands.

In the physical world this greater purchasing power rests with big corporations. Individuals and smaller corporations do not have an easy mechanism to gain the advantages afforded by greater purchasing power.

There are currently two possible ways for buyers to improve their negotiating power with vendors. One approach is to join a purchasing club such as Sam's Club or Costco. The other is the buyer initiated transaction process offered by Priceline.

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## SUMMARY OF THE INVENTION

The present invention is a buyer initiated process where a buyer who desires a specific product that is either atypical, and hence currently unavailable in the marketplace, or is available at a price that he is unwilling to pay, can aggregate buyers who also want the same product. This aggregation of other potential buyers may be done by any number of ways including postal mail, advertisements, email, or using the internet. This aggregation of buyers will result in an entity with a greater purchasing power than was possible by any of its members acting alone.

This group that has been formed to express an interest in buying a particular product shall attract vendors who desire to offer that product to that group. This creates competition among the vendors to offer the product at a reasonable price to the members of this group. These vendors may not have otherwise offered the product at those prices because:

they may have not been aware that such a product was desired,

that there was such a demand for the product or

the marketing cost to find buyers for the product has been reduced and hence some of those savings can now be passed on to the buying group.

This approach to purchasing is significantly different from a purchasing club such as Sam's Club or Costco. Specifically:

There is no intermediary here to negotiate on behalf of the potential buyers. In a purchasing club, the Club does all the negotiation with the vendors.

The Club decides what products may be of interest to their members and then negotiates with vendors for those products. In the new method, any consumer can describe the product he would like, aggregate others with a similar interest, and engage in negotiating with potential vendors.

A Club obtains discounts on all products it offers whereas here the purchasing group was temporarily formed to get the best possible price for a particular product of interest to the group.

This approach to purchasing is also significantly different from that of Priceline, as described in U.S. Patent No. 5,794,207, which is incorporated herein by reference. Specifically:

Priceline provides a means for one interested user to state the price which he would be willing to pay for a particular product. There is no aggregation of purchasing power. The method being described here is based on the aggregation of purchasing power.

In Priceline an interested user can pick from various available products. The method being described here enables an user to describe a product of his interest and create enough of a demand for that atypical product to attract vendors who may be willing to offer that product.

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## BRIEF DESCRIPTION OF THE DRAWINGS

The aforementioned advantages of the invention, as well as additional advantages thereof, will be more fully understood as a result of a detailed description of a preferred embodiment when taken in conjunction with the accompanying drawings in which.

FIG. 1 illustrates the overall computer system comprised of databases, processes, and input/output forms;

FIG. 2 illustrates the Buyer Process Manager;

FIG. 3 illustrates the Bid Process Manager;

FIG. 4 illustrates the Sale Manager;

FIG. 5 illustrates the Invitation Manager;

FIG. 6 illustrates the Group Process Manager;

FIG. 7 illustrates the Vendor Process Manager.

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## DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Described herein is a preferred embodiment, however, one skilled in the art that pertains to the present invention will understand that there are equivalent alternative embodiments.

The preferred embodiment would be as follows:

User types up any information he wants about a product he is interested in.

We create a page to display that information.

User can send mail out inviting his friends to that product-- the mail goes out with an URL to that product page.

His friends can respond by clicking on that URL and getting to that product page. On that page, they can "bid", that is express interest in the product. They can also send out mail to their own friends about the product.

Vendors who wish to respond will contact the system to have their product information and pricing listed on the site. The system lists the product and then informs all the users who expressed an interest in the availability of such a product on the site. This will be done by (a) sending out mail to all the users who have expressed interest in that product and (b) by putting a link to that vendor product listing on the page of the buyer-initiated product.

Note that multiple vendors can come forward to offer their products. Users will get a message for each such vendor and also there will be a link put on the original buyer-initiated product page for each vendor's product.

FIG. 1 describes the overall system comprised of the following entities:

### Entity 102

The "Merchandise Submission Form" allows vendors to submit information about the products they want to offer.

### Entity 104

The "Invitation Submission Form" allow users to invite others to the system and the "Invitation Acceptance Form" allows invited users to accept the invitation.

### Entity 106

The "Merchandise Interest Submission Form" allows a customer to submit information about a product he/she may be interested in.

### Entity 108

The "Bid Submission Form" allows a customer to submit a bid for a product.

Entity 110

The "Group Entry Form" allows a customer to express interest in a product that is being requested by other customers.

Entity 112

A "Vendor Process Manager" (described in detail in FIG. 7) that enables a Vendor to list a product for sale.

Entity 114

A "Sale Manager" (described in detail in FIG. 4) that manages the initiation and the closing of a Sale.

Entity 116

An "Invitation Manager" (described in detail in FIG. 5) that enables a customer to invite other potential customers to join the bidding process for a particular product.

Entity 118

A "Buyer Process Manager" (described in detail in FIG. 2) that enables a customer to initiate the buying process by describing a product of interest to him/her.

Entity 120

A "Bid Process Manager" (described in detail in FIG. 3) to enable a potential customer to place a bid for a particular product being offered for sale.

Entity 122

A "Group Process Manager" (described in detail in FIG. 6) to enable other customers to join in to express interest in a purchasing process initiated by another customer.

Entity 124

A "Vendor" database that stores information about all the participating vendors.

Entity 126

A "Customer" database that stores information about all the customers registered to participate in online purchasing.

Entity 128

A "Merchandise Description" database for storing information about each product that is being offered for sale.

Entity 130

A "Group" database that stores information about the various groups formed by customers initiating the buying process.



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Entity 132

A "Sales" database that stores information about each "Sale" that is known to the system. A Sale is an activity with an "Opening-Time", "Hold-Time", and a "Closing-Time" for a product being offered by a vendor, with the description stored in the Merchandise Description database.

Entity 134

A "Bid" database that stores all the bids registered by customers for each Sale.

Entity 136

An "Orders" database that stores all the orders at the consummation of a Sale.

**FIG. 2**

FIG. 2 describes the Buyer Process Manager.

The Buyer Process Manager enables any registered user to post a description of the merchandise that he is interested in and then form a group to begin aggregating others with a similar interest.

Step 201

The system checks to see if the customer is registered with the system.

Step 202

If the customer is not registered, his information is gathered and stored in the Customer database and the user is registered with the system.

Step 203

A registered customer can submit the description of the merchandise that he is interested in. The system checks to see if the description is valid. This check could include seeing whether the desired product is fully described so as not to be ambiguous to potential vendors. It also checks to see if other users have already requested such a product.

Step 204

In the case that other users have already requested such a product the system can point the current user to those groups that have already been formed. If the desired merchandise is not fully described, the user gets an error message asking for more details or clarifications.

Step 205

If the description is valid it is added to the Merchandise Description database. The current price is set to "No current price" to indicate that there is no vendor currently offering the product.

Step 206

A new group is created for this desired merchandise and is added to the Group database.

Step 207

The merchandise description is appropriately formatted to be posted to the web. It could also be published in a newspaper, communicated by email, or by other means to potential buyers.

Eligible vendors are notified about the formation of the group for a particular merchandise.

### FIG. 3

FIG. 3 describes the Bid Process Manager.

A prospective buyer can register his interest in purchasing a particular product offered in a Sale by placing a bid for the product. This is done using the Bid Process Manager.

#### Step 301

The prospective buyer, referred to also as a customer, is checked to see whether he is registered with the system. This also includes any authentication steps to ensure that the customer is who he says he is. This could also be accomplished using automated identification and authentication processes.

#### Step 302

If the customer is not registered with the system, his information is added to the Customer database and he is registered with the system.

#### Step 303

If the registered customer wishes to place a new bid in the Sale or to increase the number of units in an existing bid, he can do so at any time from the time that the Sale opens to the time that it closes. However, if he wishes to delete an existing bid or reduce the number of units being bid on then the system checks to see if the Sale is now in a "Hold" status.

#### Step 304

The system checks to see if the Sale is marked "Hold".

#### Step 305

If the Sale is marked "Hold" then the customer cannot delete or reduce his bid and hence the system returns an error message to the customer.

#### Step 306

If the Sale is not on "Hold" then the customer's bid is deleted or reduced as requested. The Bid database is updated accordingly.

#### Step 307

If the customer were trying to add a new bid or modify an existing one, the bid is checked for validity. This includes checking to see if the bid refers to the product offered in the Sale, and for quantities that are currently available.

#### Step 308

If the bid is not valid for any reason an error message is sent out to the customer.

309

If the bid is valid, the Bid database is updated with the new bid.

#### FIG. 4

FIG. 4 describes the Sale Manager.

The Sale Manager describes the steps taken to initiate a new Sale to the steps to close out a Sale. Every Sale in the Sale database is in one of four different states: (1) New (2) Active (3) Hold and (4) Closed. Vendors add new Sales to the Sales database. The Sale Manager then manages the process by which a new Sale becomes Active, Hold, or Closed.

##### Step 401

The Sale database is queried for all new Sales whose "Effective Time" is at or past the current time.

##### Step 402

All such new Sales are now marked as "Active".

##### Step 403

These newly Active Sales are posted to the web. This includes getting the corresponding merchandise description from the Merchandise Description database and combining that with the Sale information, formatting all of it appropriately, putting the final description through an approval process that may be automated, and then publishing the information on to the web.

##### Step 404

The system queries the Sale database for all Active Sales with a "Hold" time that is at or past the current time.

##### Step 405

The resulting Sales are marked "Hold". So customers with an interest in products offered by these Sales now marked Hold cannot delete or reduce their bids for the products offered in these Sales.

##### Step 406

The system queries the Sale database for all "Hold" Sales with a Closing Time that is at or past the current time.

##### Step 407

The resulting Sales are marked "Closed". This means that customers can no longer bid on the products offered in those Sales.

Step 408

For each Sale that has just been marked "Closed" the system processes the Sale. The processing steps are described in Steps 9 through 13.

Step 409

For a given closed Sale, all the outstanding bids are obtained from the Bid database.

Step 410

The product vendor's information is obtained from the Vendor database. A purchase order is constructed for each customer whose bid remained outstanding at the end of the Sale. The purchase order will state the number of units bid by the customer and the unit price will be the price calculated in Step 10.

Step 411

All the bids that have been processed will be deleted from the Bid database. The newly created orders, for which purchase orders were generated in Step 11, are added to the Orders database.

Step 412

The processed Sale is now deleted from the Sale database.

Step 413

The Steps 9-13 are repeated until there are no more Closed Sales to process.

**FIG. 5**

FIG. 5 describes the Invitation Manager.

The Invitation Manager is used by customers to invite other users to join the system and bid on products. Users wishing to accept the invitation use the Invitation Manager to do so.

Step 501

Users may submit one of two forms: (1) an invitation submission form or (2) an invitation acceptance form. If a customer wishes to submit an invitation, he is taken through Steps 2-6. If an user wishes to accept an invitation, he is taken through Steps 7-9.

Step 502

Only a registered customer can invite other users. So the system checks to see if the customer is registered. This step includes authenticating the customer.

Step 503

If the customer is not registered, he may provide his information and get registered with the system. The customer information is then added to the Customer database.

Step 504

A registered customer can submit an invitation. The system checks to see if the invitation is valid. The validity could be based on the prevailing policies in the system such as that a customer must invite another user to a specific Sale only or that no more than 5 users may be invited at any given time or that the customer must fill out certain pieces of information about each user being invited to join.

Step 505

If the invitation is not valid the customer is sent an error message.

Step 506

If the invitation is valid, it is appropriately formatted and set up for the means of communication, and then sent out by those means. This could be in the form of email, fax, or postal mail.

Step 507

If a user wishes to accept an invitation that he received, the system checks to see if the user is already registered in the system. If he is already a registered customer, then the system just reminds the user that he is already registered.

Step 508

If the user is not registered with the system, then his information is added to the Customer database and he is registered with the system.

Step 509

To the database record of the new customer, the ID (identification number or some other system method of identification) of the customer who invited the current customer is added. The inviting customer is referred to as the "Invitor".

**FIG. 6**

FIG. 6 describes the Group Process Manager.

The Group Process Manager enables interested users to join a purchasing group that already exists.

Step 601

The system checks to see if the user is already registered or not.

Step 602

If the user is not currently registered with the system, the user information is gathered and stored in the Customer database and the user is registered.

Step 603

A registered customer can decide to express interest in a product by submitting to join a particular group. He must also indicate how many units of the particular product he is interested in.

Step 604

If the group entry form is not valid the system sends the user an error message.

Step 605

If the entry form is valid, the user's bid information is added to the Group database.

#### FIG. 7

FIG. 7 describes the Vendor Process Manager.

The Vendor Process Manager provides a means for interested vendors to submit their products to be offered to groups that are interested in them.

Step 701

The system checks to see if the vendor is registered.

Step 702

If the vendor is not yet registered, the system gathers the vendor information and stores it in the Vendor database and the vendor is registered.

Step 703

A registered vendor can submit a description of the merchandise he wishes to offer. The system checks whether all the requisite information has been submitted.

Step 704

If the submitted information is not valid, the system returns an error message to the vendor.

Step 705

If the submitted information is valid, the system then checks to see if it matches the requirements of any existing purchasing groups.

Step 706

If the submitted information does not match the requirements of any existing group, the vendor receives an error message.

Step 707

If the submitted information matches the requirements of a specific purchasing group then the system checks to see if this is the first vendor offering the product (as identified by the current price being "no current price") or if the current vendor's price is superior to the current price for the product.

Step 708

If the answer to Step 7 is no, then the buyers already have a superior price and hence the current vendor is returned an error message.

Step 709

If the answer to Step 7 is yes, it means that the buyers are getting a superior price and that they now have a vendor willing to provide the product, hence the system updates the Merchandise Description record for this product with the current vendor's price.

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Step 710

The system checks to see if a Sale record already exists for this merchandise. If it does exist, the system executes Step 15, if not then Steps 11-14.

Step 711

If the Sale record does not already exist, then a Sale record is created in the Sale database and the Sale is marked "Active" to indicate that now the actual selling process is underway.

Step 712

The "Hold Time" and the "Closing Time" for the Sale are set relative to the current time. Since the Sale becomes Active when the first valid vendor arrives, the user initiating the process cannot know exactly when to set the "Hold Time" and "Close Time", both of which are therefore set relative to the "Active Time".

Step 713

All the bids in the Group database for this particular group are now moved to the Bid database as bids for this just initiated Sale.

Step 714

The merchandise description for the product is now published to the web.

Step 715

If the Sale record already existed, then the merchandise description is updated with the new price being offered by the current vendor.

Step 716

All users who have a bid in this Sale are notified of the existence of a vendor offering the desired product at the new price.

**METHOD AND SYSTEM FOR BUYER INITIATED AGGREGATING  
OF BUYERS TO OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES**

Inventor: Sashi P. Reddi

**ABSTRACT**

A buyer-initiated process including posting the description of a product item of interest to him and aggregating buyers who are interested in the same product or service. Vendors can then come forward to offer the desired product or service by posting the best price they can offer to that group of buyers.

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Applicant or Patentee: Sashidhar P. Reddi

Serial or Patent No.: (new)

Filed or Issued: Herewith

For: METHOD AND SYSTEM FOR BUYER INITIATED AGGREGATING OF BUYERS TO OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES

Attorney Docket No.:

22947.00200 - PATENT

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY  
STATUS (37 CFR §§ 1.9(f)) -- INDEPENDENT INVENTOR

As a below named inventor, I hereby declare that I qualify as an independent inventor as defined in 37 CFR § 1.9(c) for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, to the Patent and Trademark Office with regard to the invention entitled METHOD AND SYSTEM FOR BUYER INITIATED AGGREGATING OF BUYERS TO OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES described in

- ☒ the specification filed herewith.  
☐ the application identified above.  
☐ the patent identified above.

I have not assigned, granted, conveyed or licensed and am under no obligation under contract or law to assign, grant, convey or license, any rights in the invention to any person who could not be classified as an independent inventor under 37 CFR § 1.9(c) if that person had made the invention, or to any concern which would not qualify as a small business concern under 37 CFR § 1.9(d) or a nonprofit organization under 37 CFR § 1.9(e).

Each person, concern or organization to which I have assigned, granted, conveyed, or licensed or am under an obligation under contract or law to assign, grant, convey, or license any rights in the invention is listed below:

- ☒ no such person, concern, or organization  
☐ persons, concerns or organizations listed below\*

\*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR § 1.27).

FULL NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

☐ Individual ☐ Small Business Concern ☐ Nonprofit Organization

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR § 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Sashidhar P. Reddi

Signature \_\_\_\_\_

Date \_\_\_\_\_

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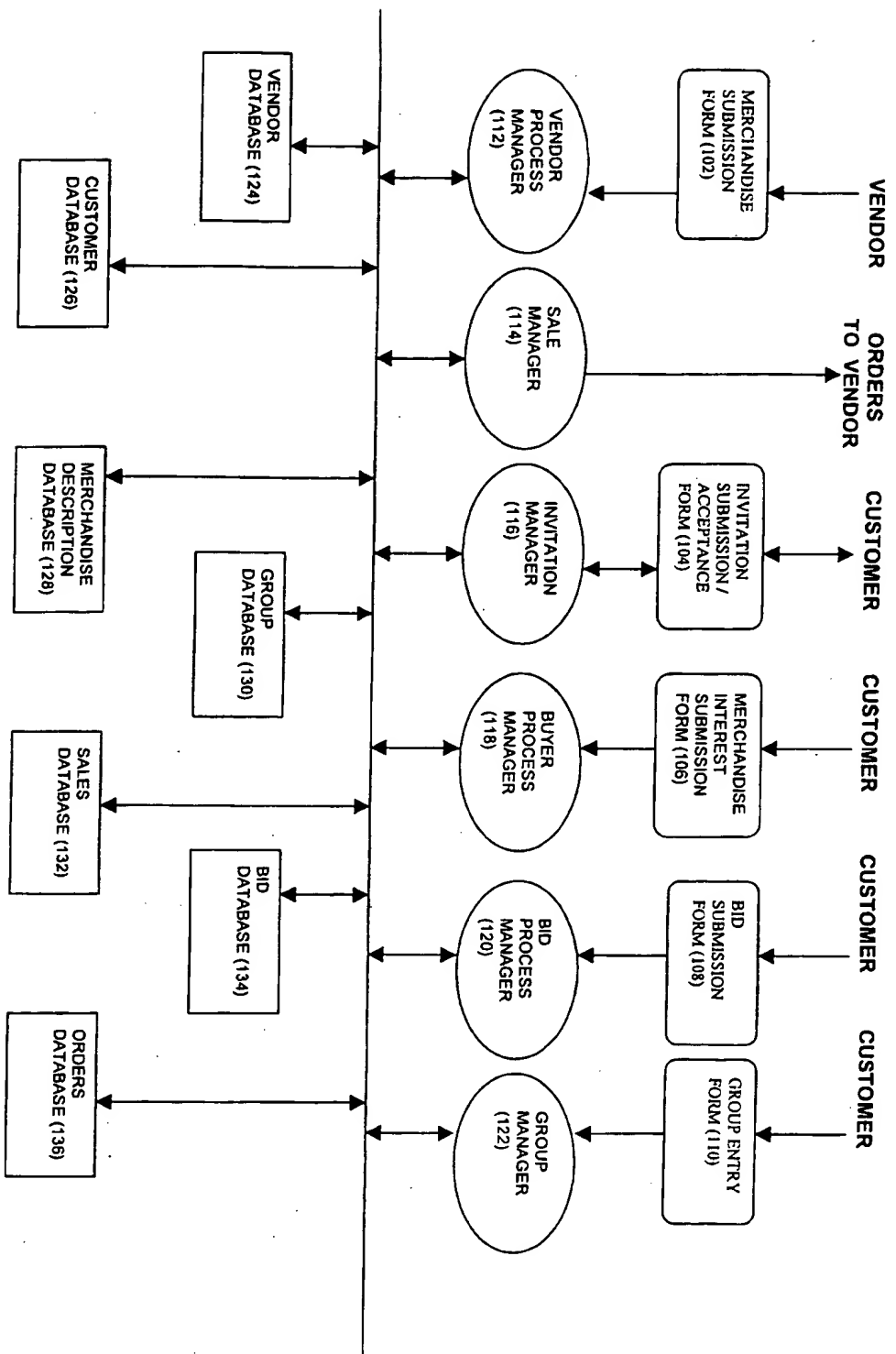


FIG. 1 OVERALL SYSTEM ARCHITECTURE

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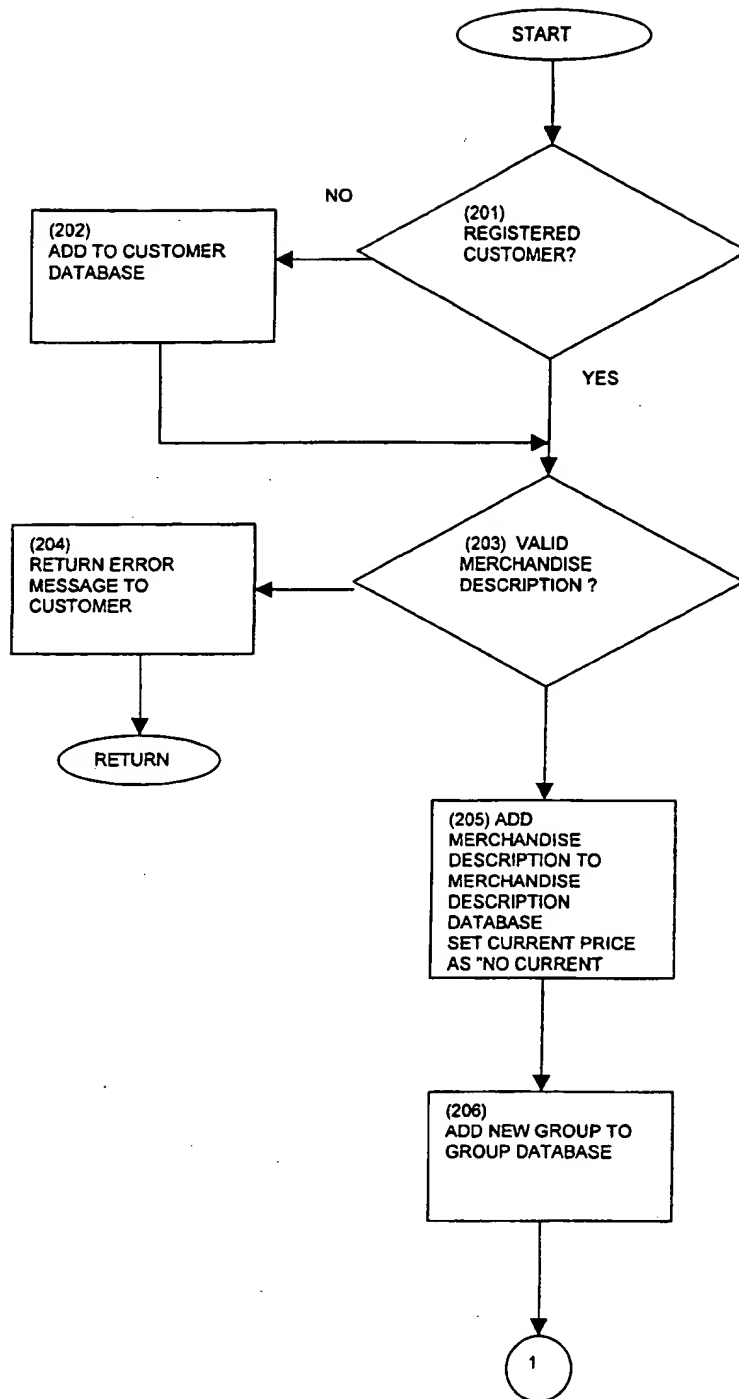
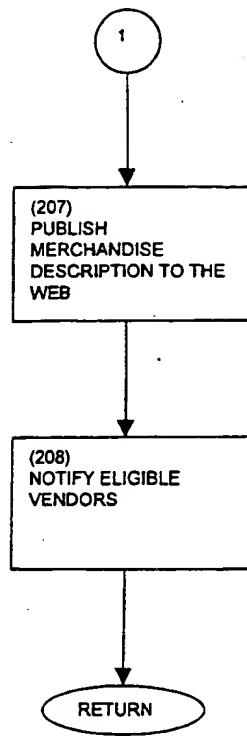
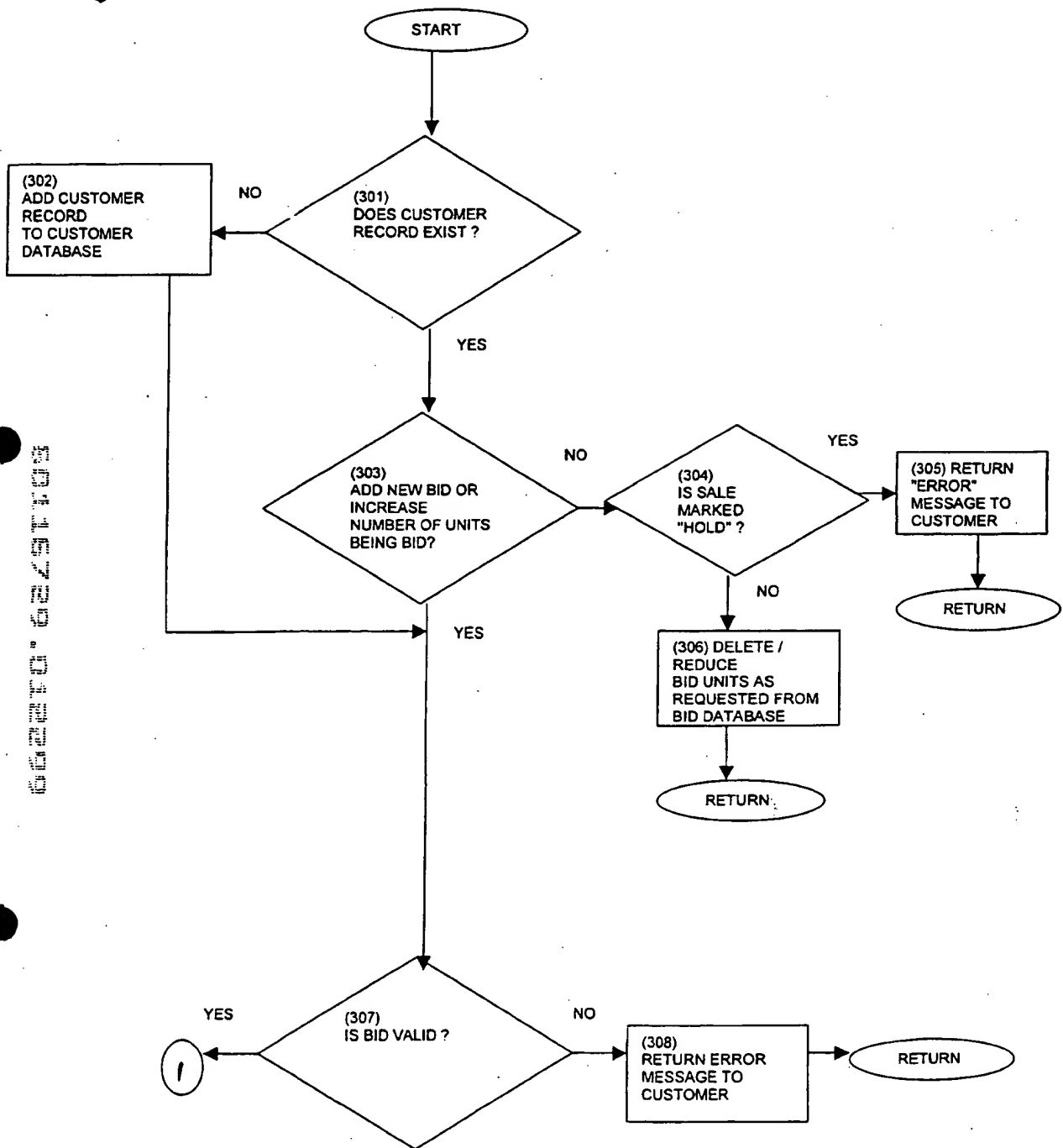


FIG. 2A  
BUYER PROCESS MANAGER

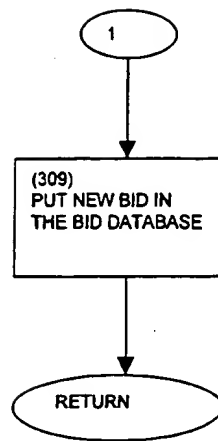
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**FIG. 2 6**  
**BUYER PROCESS MANAGER**



**FIG. 3 A**  
**BID PROCESS MANAGER**



**FIG. 3 B**  
**BID PROCESS MANAGER**

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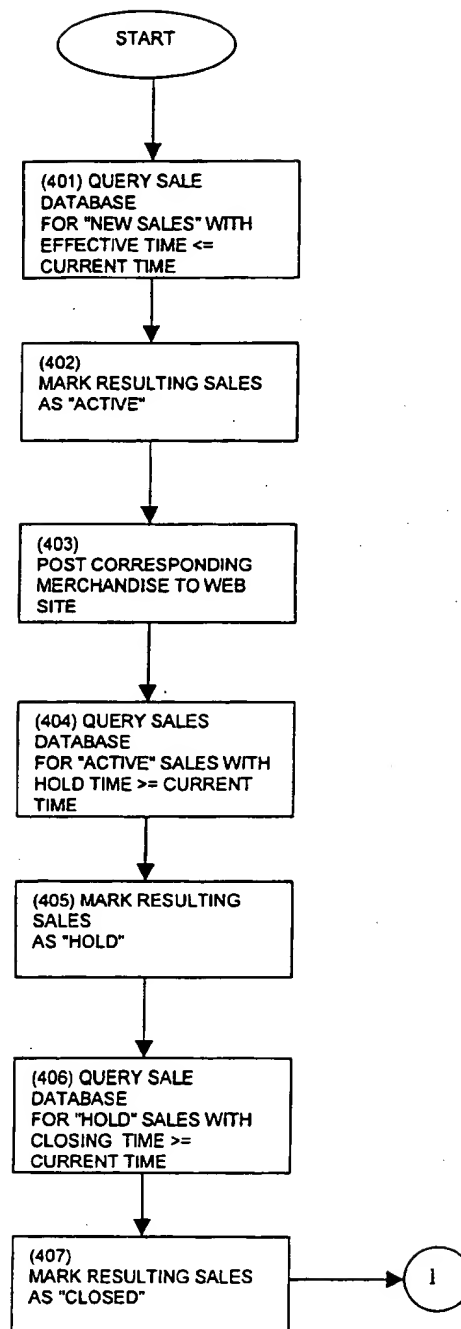


FIG. 4A  
SALE MANAGER

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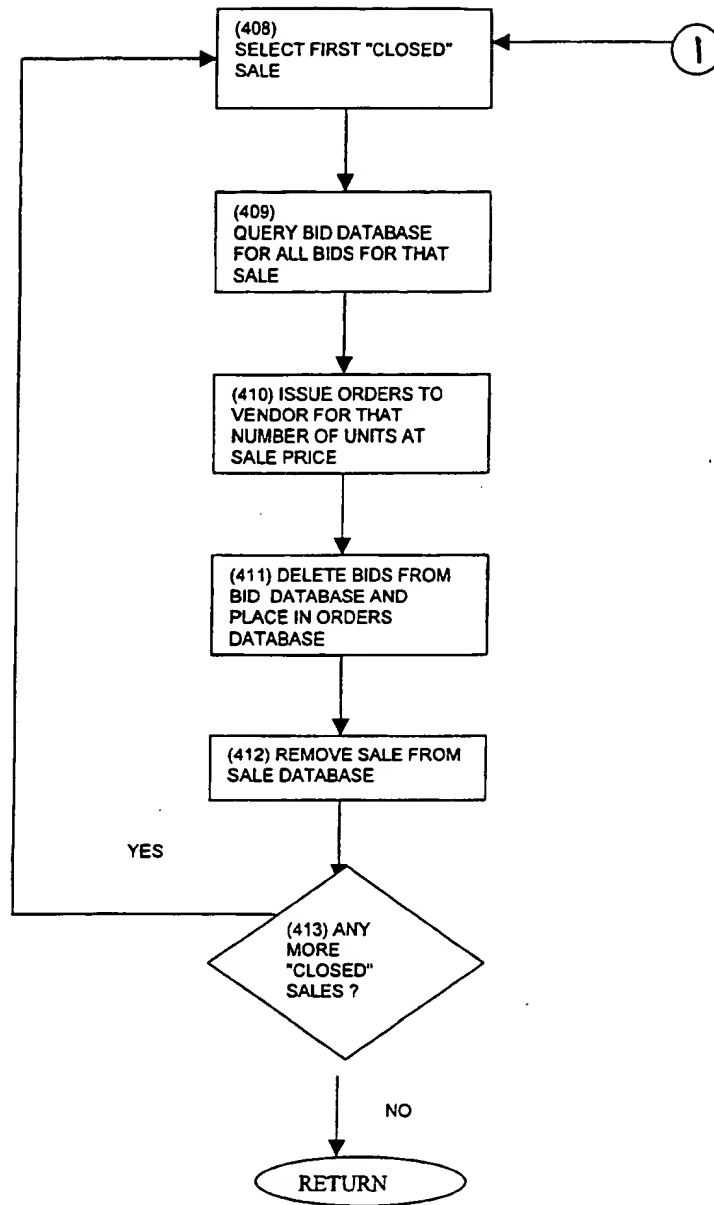


FIG. 48  
SALE MANAGER



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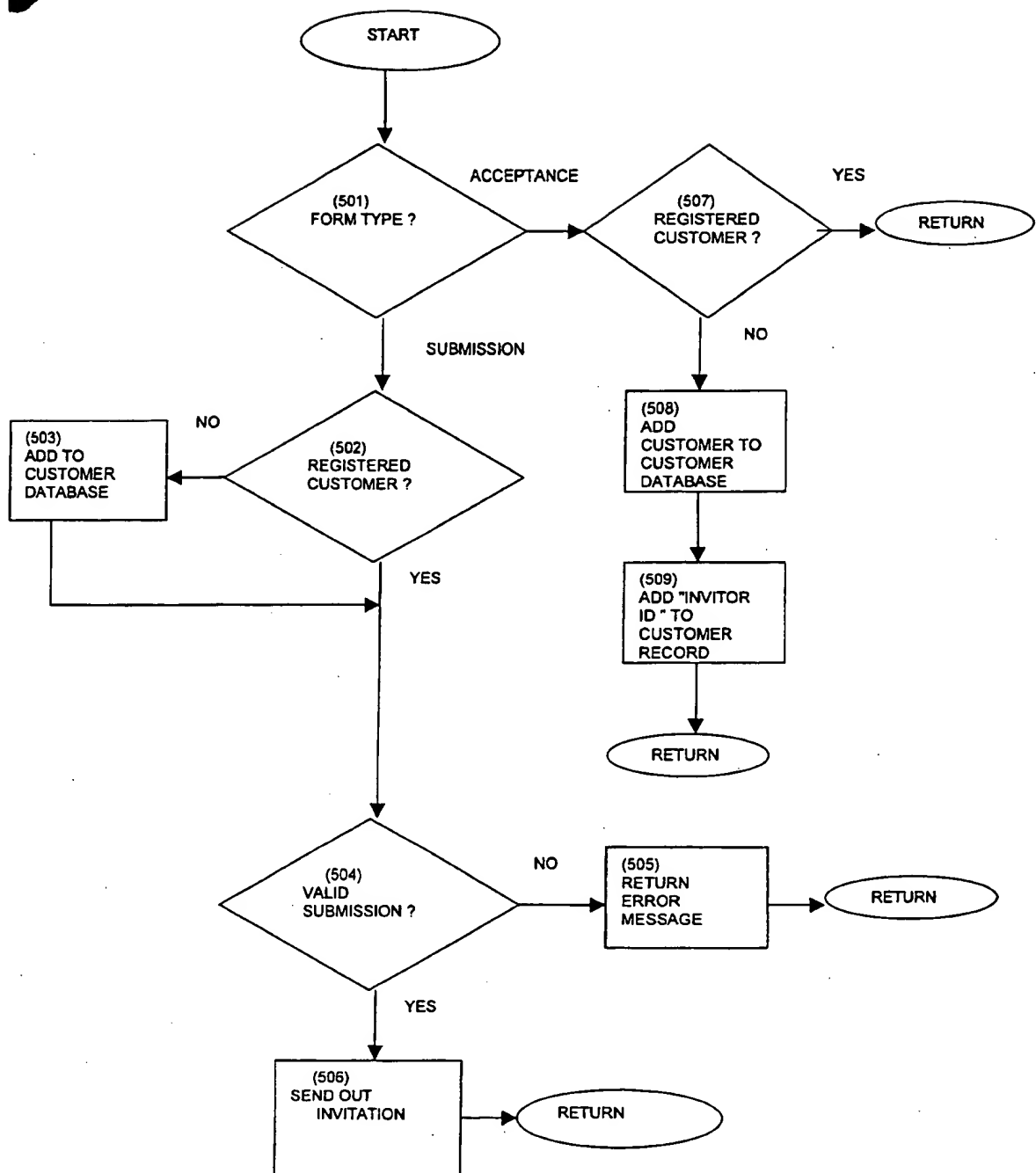
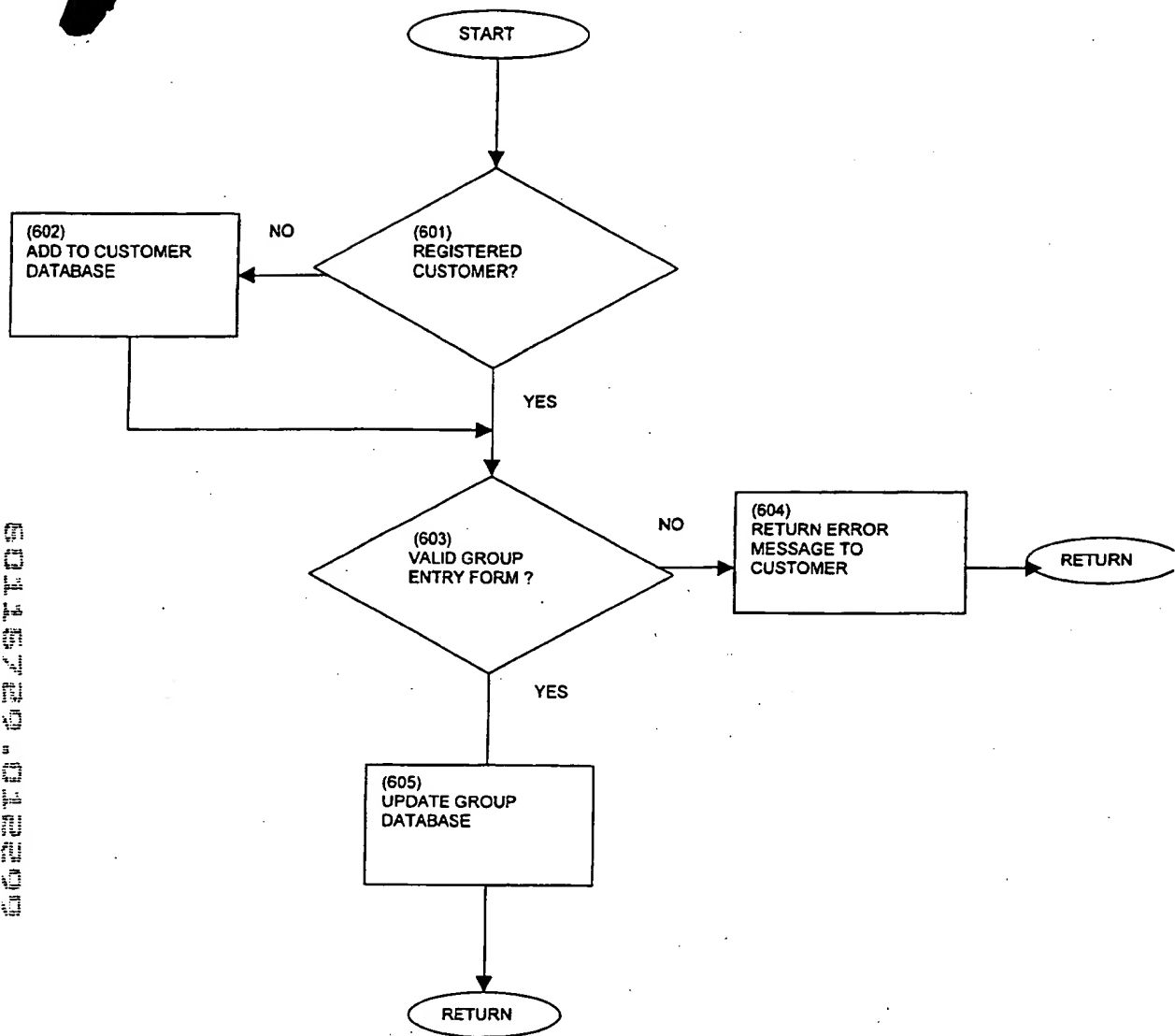


FIG. 5  
INVITATION MANAGER



**FIG. 6**  
**GROUP PROCESS MANAGER**

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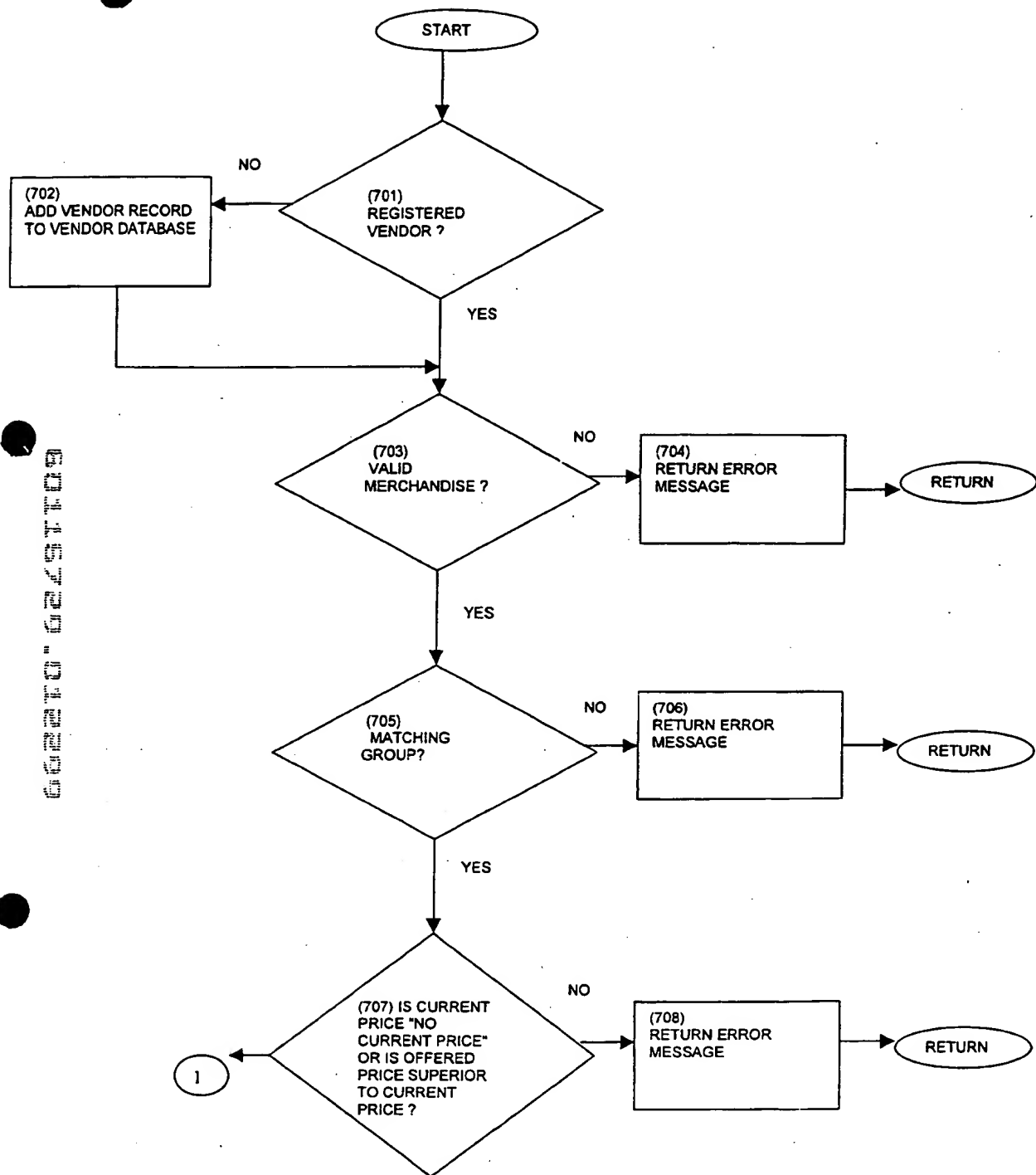


FIG. 7A  
VENDOR PROCESS MANAGER

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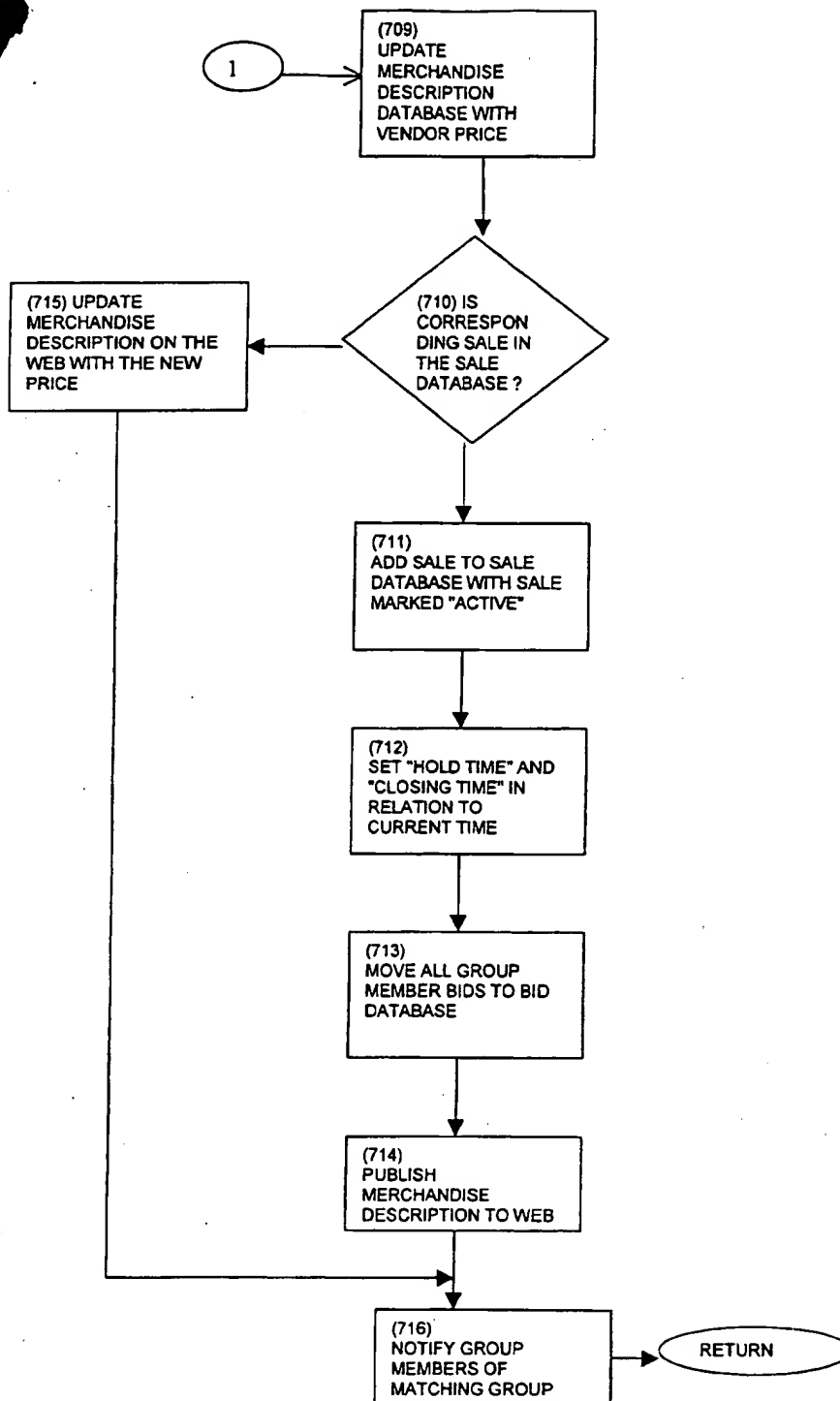


FIG. 7B  
VENDOR PROCESS MANAGER

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APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A  
FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: 09/346,783

FILING DATE: July 07, 1999

PCT APPLICATION NUMBER: PCT/US00/01457

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P. R. GRANT  
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**METHOD AND SYSTEM FOR BUYER-INITIATED AGGREGATING  
OF BUYERS TO OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES**

**Inventor: Sashidhar P. Reddi**

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**CROSS REFERENCE TO RELATED APPLICATIONS**

10 This application depends for priority upon U.S. Provisional Patent Application  
Serial Number 60/116,729, entitled METHOD AND SYSTEM FOR BUYER  
INITIATED AGGREGATING OF BUYERS TO OBTAIN DESIRED PRODUCTS AT  
DISCOUNTED PRICES, filed January 22, 1999, which is incorporated herein by  
reference. Also, this application is related to concurrently filed and copending  
Application Serial Number <new>, entitled METHOD AND SYSTEM FOR LOW  
VOLUME BUYERS TO AGGREGATE PURCHASING POWER which is dependent for  
15 priority upon U.S. Provisional Patent Application Serial Number 60/116,920 of the  
same name, filed January 22, 1999, both of which applications are incorporated  
herein by reference.

**BACKGROUND OF THE INVENTION**

**Field of the Invention**

20 The present invention relates generally to electronic commerce and more  
particularly to the formation of online communities to initiate the purchasing of  
products that are generally not available in the marketplace at reasonable prices.

**Description of the Related Art**

25 There are well-known and significant advantages available to buyers who  
increase their purchasing power. Vendors offer bigger discounts and better  
customer service to high volume customers, and are more willing to make changes  
to their product offerings to suit high volume buyer demands. In the available art,  
this greater purchasing power rests with big corporations. Individuals and smaller

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corporations presently do not have access to a flexible, multi-product mechanism providing the advantages afforded by high volume purchasing power.

There are currently two possible ways for buyers to improve their negotiating position with vendors. One approach is to join a purchasing club such as Sam's Club or Costco. However, a buyer taking this approach to purchasing suffers significant disadvantages. First, the club does all the negotiation with the vendors – the buyer is not involved in the negotiating process. Also, the purchasing club decides what products may be of interest to their members and then negotiates with vendors for those products. In addition, buyers must pick only from a pre-selected list of products and have no convenient mechanism for changing or adding to the products available. Also, buyers have no direct influence over the prices they pay, and have no incentive to cooperate with other buyers to affect prices. Finally, available buying clubs provide no mechanism to create direct competition between vendors for buyer activity.

Another way for buyers to improve their negotiating position is by signing up with a buyer-initiated purchasing process, such as the one offered by Internet-based companies such as Priceline.com, whose sales mechanism is described in U.S. Patent No. 5,794,207, incorporated herein by reference. Specifically, Priceline.com provides a means for an interested user to state the price he or she would be willing to pay for a particular product. There is no aggregation of purchasing power. Further, using Priceline.com, an interested user can pick only a few well-known and commonly available products and services.

## SUMMARY OF THE INVENTION

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A preferred embodiment of the present invention comprises an automated system and method of buying, comprising: a) a Merchandise Interest Submission Form to obtain product information about a desired product from a first buyer; b) a Merchandise Submission Form to obtain sale information for the product from a first vendor; c) a Buyer Process Manager to store product information in a Merchandise Description Database; d) a Vendor Process Manager to store sale information in a Sale Database; and e) a Sale manager to match product information and sale information and generate orders for the product. Preferably, the system obtains offers from more than one vendor and then offers the buyers the best price. Also preferably, the system employs a Group Manager to aggregate buyers seeking the same product. Once a vendor is identified for a given product, the buyers in the corresponding group will automatically submit bids for the product. The system may also comprise a Bid Process Manager and Bid Submission Forms to allow additional buyers to place bids. The buyers may place and withdraw bids after the Start Time of the sale. After the Hold Time, only new bids and increased bids are allowed. Ideally, both the buyers and the vendor(s) communicate with the system via a wide area network such as the Internet. However, other means of submitting and receiving information from the system are possible including automated telephone systems or even direct input and output, such as keyboard, monitor and printer.

In another embodiment, the system comprises a) Buyer Process means for obtaining product information from a buyer about a product; b) Vendor Process means for obtaining sale information for the product from a vendor; and c) a Sale means for matching product information and sale information and generate orders for the product. The invention also is a computer-implemented method comprising the steps of a) obtaining product information for a desired product from a buyer; b) obtaining sale information about the product from a vendor; c) storing and



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- organizing the sale information; d) storing and organizing the product information;  
e) matching product information and sale information; and f) generating orders for  
the product. The method can also comprise the steps of grouping additional  
buyers based on interest for the same product or comparing the sale information  
5 from more than one vendor to find the best price or offering invitations to potential  
buyers. The invention also comprises computer-readable media having instructions  
for carrying out the above steps.

10 The present invention is a buyer initiated process where a buyer who desires  
a specific product that is either atypical, and hence currently unavailable in the  
marketplace, or is available at a price that he is unwilling to pay, can aggregate  
buyers who also want the same product. This aggregation of other potential buyers  
may be done by any number of ways including postal mail, advertisements, email,  
or using the Internet. This aggregation of buyers will result in an entity with a  
15 greater purchasing power than was possible by any of its members acting alone.

20 The group that has been formed to express an interest in buying a particular  
product attracts vendors who desire to offer the particular product to the group,  
thereby inducing price competition among the vendors who offer the product, to  
the group's benefit. These vendors may not have otherwise offered the product at  
those prices for various reasons. For example, they may not have been aware that  
such a product was desired or that there was sufficient demand for the product.  
With the formation of the group, however, the marketing cost to find buyers for  
the product has been reduced and hence some of those savings can now be  
25 passed on to the buying group.

It is therefore a first advantage of the present invention to provide an  
intermediary-free opportunity for buyers to negotiate with vendors while  
aggregating purchasing power

It is a second advantage of the present invention is that any consumer can describe the product he would like, aggregate others with a similar interest, and engage in negotiating with potential vendors.

5 It is another advantage of the method and system of the present invention is that the purchasing group is temporarily formed to get the best possible price for a particular product of interest to the group, no matter how obscure or unusual the product might be.

10 Still another advantage of the method and system of the present invention is the provision of increased buyer choice and direct effect on product selection, direct buyer influence on the price paid for an item, the provision of incentive for buyers to cooperate in order to influence price, and the provision of a forum for active competition between vendors for a set of buyers committed to purchasing  
15 an item.

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## **BRIEF DESCRIPTION OF THE DRAWINGS**

The aforementioned advantages of the invention, as well as additional advantages thereof, will be more fully understood as a result of a detailed description of a preferred embodiment when taken in conjunction with the accompanying drawings in which:

FIG. 1 schematically illustrates the overall system of the present invention, including databases, processes, and data input/output forms;

FIG. 2 is a flow chart illustrating the Buyer Process Manager of the present invention;

FIG. 3 is a flow chart illustrating the Bid Process Manager of the present invention;

FIG. 4 is a flow chart illustrating the Sale Manager of the present invention;

FIG. 5 is a flow chart illustrating the Invitation Manager of the present invention;

FIG. 6 is a flow chart illustrating the Group Process Manager of the present invention;

FIG. 7 is a flow chart illustrating the Vendor Process Manager of the present invention.

While the invention is susceptible to various modifications and alternative forms, specific embodiments thereof have been shown by way of example in the drawings and will herein be described in detail. It should be understood, however, that the detailed description is not intended to limit the invention to the particular forms disclosed. On the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the appended claims.

## DETAILED DESCRIPTION OF THE INVENTION

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5 The system and method of the present invention facilitates communication between one or more buyers and one or more vendors. The process is initiated by a buyer submitting information about a desired product. This information is communicated to vendors and to other potential buyers across a wide area computer network such as the Internet. Other buyers are then allowed, and alternatively invited, to submit bid information to join a group and express interest in the desired product so that the vendors can gauge the demand for the desired product. One or more vendors may then offer the desired product at a given price. The inventive system and method then automatically selects the vendor offering the lowest price. Once a vendor has submitted information about the offered product, it is assigned a "Start Time," a "Hold Time" and a "Close Time" and becomes a sale. After the Start Time, the group information is converted to bids for the product. Further, all buyers may place additional bids for the product. At the Close Time, any outstanding bids are processed and the product is sold at the price offered by the vendor. The Hold Time freezes the minimum bid for the offered product by requiring users who have an open bid at the Hold Time to honor that bid. After the Hold Time users cannot withdraw or decrease their bids, although they may increase bids or add a new bid. Until the Hold Time, the user has complete freedom. Any buyer can decide to increase the number of units bid for, introduce a new bid, decrease the number of units bid for, or withdraw a bid completely.

25 As shown in FIG. 1, one embodiment of the invention comprises a computer system having a number of software modules including: Forms that allow the input of information from vendors and buyers; Databases that organize and store the buyer and vendor information; and Managers that process and communicate the information between the Forms and the Databases.

Specifically, the Forms comprise: Merchandise Submission Form 102, which allows vendors to submit information about offered products; Invitation Submission/Acceptance Form 104, which allows buyers to invite others to the system and invited buyers to accept the invitation; Merchandise Interest Submission Form 106, which allows buyers to submit information and thus request a product; Bid Submission Form 108, which allows a buyer to submit a bid for an offered product; and Group Entry Form 110, which allows buyers to express interest in a requested product.

10 The Managers process and control the flow of information from the Forms and Databases and comprise: Vendor Process Manager 112, which controls the products placed for sale by a vendor; Sale Manager 114, which controls the initiation and closing of sales; Invitation Manager 116, which controls the invitation of other buyers to join the bidding process for a particular product; Vendor Process  
15 Manager 118, which controls the products requested by buyers; Bid Process manager 120, which controls the buyers bids for an offered product; and Group Manager 122, which enables other buyers to join in and express interest in a requested product. Specific operations of the Managers are illustrated in FIGs. 2-7 and described below.

20 The Databases organize and store the product, vendor and bid information and comprise: Vendor Database 124, which stores information about all the participating vendors; Customer Database 126, which stores information about all the buyers registered to participate in online purchasing; Merchandise Description  
25 Database 128, which stores information about each product offered for sale; Group Database 130, which stores information about buyer demand for a requested product; Sales Database 132, which stores information about each sale that is known to the system; Bid Database 134, which stores bids registered by

buyers for each sale, and Orders Database 136, which stores orders at the consummation of a Sale.

5 The Buyer Process Manager 118 enables a user, preferably only a registered user, to post a description of the merchandise the user is interested in, in order to request a product. Once the product is requested, a group can begin forming, thereby aggregating other potential buyers with a similar interest. A flow chart illustrating the operation of Buyer Process Manager 118 is provided in FIGs. 2A and 2B.

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15 FIG. 2A illustrates in flow-chart form the process triggered by a buyer submitting information for a requested product via Merchandise Interest Submission Form 106. At step 201, the system checks to see if the buyer is registered. Also at step 201, the buyer's identity is authenticated. Various methods of identifying a buyer, including reading his network address, are envisioned as part of the present invention, as will be understood by one having the normal skill in the art to which the present invention pertains. Preferably, the authentication process is automated. In step 202, the buyer submits identifying information and, if not yet registered, registers with the system. In step 203, Buyer Process Manager 118 processes information from Merchandise Interest Submission Form 106 to the system. Specifically, the information is checked for validity and completeness including determining whether the desired product is fully described so as not to be ambiguous when reviewed by potential vendors. Buyer Process Manager 118 also determines whether other buyers have already requested such a product. At step 204, the buyer is notified if there is a problem with the information and prompted for correction. The buyer is also notified if another buyer has already requested the same or similar product and the buyer is given the option to join the group for that product as described below. At step 205, the verified merchandise description is passed to Merchandise Description

Database 124 and the price for the product set as "no current price" since no vendor has yet offered the product. Group Database 136 is updated at step 206 by creating a new record for the requested product so that other buyers express interest.

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As shown in FIG. 2B, information about the product is communicated to potential buyers at step 207, preferably by posting the information on the Internet or other wide area network. Finally, at step 208, the information is communicated about the requested product to vendors, also preferably via the Internet. The information could also be communicated through newspapers, email, telephone or other means.

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FIGs. 3A and 3B are flow charts illustrating the operation of Bid Process Manager 120, allowing a prospective buyer to register interest in purchasing a requested product that has subsequently been offered for sale (as shown in FIG. 7) by placing a bid for the product. As shown in FIG. 3A, the prospective buyer is checked at step 301 to determine whether the buyer is registered with the system. This also includes any desired authentication steps to verify the customer's identity. Preferably, this could be accomplished using automated identification and authentication processes known to those skilled in the art. New customers are registered by submitting the requisite information in step 302. In step 303, the customer's instruction to place a new bid in the sale or to increase the number of units in an existing bid is processed if the sale is between the Start Time and the Close Time. Instructions to decrease a bid or withdraw it altogether are processed in step 304 by checking to see if the Hold Time for the sale has occurred. Step 305 returns an error message to the customer if it is after the Hold Time for the sale, informing the customer that the bid cannot be deleted or reduced. If the Hold Time has not occurred, step 306 deletes or reduces the customers bid accordingly and updates Bid Database 134. New or increased bids processed in step 303 are

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erified in step 307, including checking to see if the bid refers to the product offered in the sale, and if the quantity requested is currently available. Step 308 returns an error message if the bid is not validated in step 307. Conversely, as shown in FIG. 3B, validated bids are added to Bid Database 134 in step 309.

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FIGs. 4A and 4B flow illustrate the operation of Sale Manager 114, which generally comprises the steps taken to initiate a new sale and the steps taken to close out a sale. Each sale stored in Sale Database 132 is in one of four different states: New, Active, Hold and Closed. Once a vendor has offered a product in response to a buyer request, a new sale is added to the Sales Database 132 based on the information obtained through Merchandise Submission Form 102 to Vendor Process Manager 112 as described below. Sale Manager 114 controls the process by which a new sale becomes Active, Held, or Closed.

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Specifically, FIG. 4A illustrates that at step 401, Sale Database 132 is queried for all new sales whose Start Time is at or after the current time. At step 402, such sales are marked as Active. In step 403, Active sales are communicated to prospective buyers, preferably through a wide area network such as the Internet. This includes getting the corresponding merchandise description

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information from Merchandise Description Database 128 and combining that with the sale information, formatting all of it appropriately, putting the final description through an approval process that may be automated, and then publishing the information on the web. At step 404, Sale Manager 114 queries Sale Database

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132 for all Active sales with a Hold Time at or after the current time. Step 405 marks the appropriate sales as Held. Step 406 queries the Sale database for all Held sales with a Close Time that is at or after the current time and marks them as Closed in step 407 so that no increases or new bids will be accepted.



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FIG. 4B shows the steps taken to close out a sale. At step 408, Closed sales are identified and, at step 409, Bid Database 134 is queried for all outstanding bids corresponding to the Closed sale. At step 410, the product vendor's information is obtained from the Vendor Database 124 and the price information is taken from Merchandise Description Database 128. A purchase order is constructed for each buyer whose bid remains outstanding at the end of the sale. The purchase order reflects the number of units bid for by the customer and the unit price given by the vendor. At step 411, the processed bids are deleted from Bid Database 134 and newly created purchase orders from step 410 are added to Orders Database 136. Finally, at step 412, the processed sale is deleted from Sale Database 132 and step 413 returns to step 408 until all closed sales are processed.

A flow chart for the operation of Invitation Manager 116 in conjunction with Invitation Submission/Acceptance Form 104 is shown in FIG. 5. Generally, customers invite other users to join the system and bid on products. Since the invention is predicated on the aggregation of buying power, it is in the interests of the buyers to recruit as many new buyers as possible. Potential users wishing to accept the invitation use Invitation Manager 116 to do so. At step 501 the processes are routed to one of two paths: at steps 502-506 an invitation is sent from a current user to a prospective one, while at steps 507-509, a prospective user may accept an invitation.

At step 502, current users wishing to issue an invitation are first checked to determine whether they are registered. If not, they are registered and added to Customer Database 126 in step 503. At step 504, invitation validity is checked. The validity determination may be based upon whatever policies are desired for a particular implementation. For example, in one embodiment a customer must invite another user to a specific sale only, or no more than 5 users may be invited at any given time, or each customer must provide certain pieces of information about

each user invited to join. At step 505 an error message is returned if the invitation is not validated by step 504. Valid invitations are formatted and then communicated to the desired prospective users in step 506. Suitable means of communication include email, fax, postal mail and the like. For example, the buyer who requests a product can send emails inviting others to express an interest, and the email could contain a uniform resource locator link so that the recipient can easily pull up the merchandise description information.

Invited users are checked at step 507 to determine whether they are in Customer Database 126. If the invitee is already a registered customer, then Invitation Manager 116 simply reminds the user. Alternatively, at step 508 the requisite information is obtained and the invitee is added to Customer Database 126 to register the user. Suitable identification of the invitor is added to the record of the invitee at step 509.

FIG. 6 illustrates the steps taken by Group Manager 122 when a buyer joins a group to indicate demand for a requested product by submitting information via Group Entry Form 110. At step 601, the system checks whether the buyer is registered. This step also authenticates the buyer to verify the buyer's identity. This includes various ways of identifying a buyer including reading his network address, etc. At step 602, the buyer submits his information and registers himself with the system if the buyer is currently not registered with the system. At step 603, Group Manager 122 validates information from Group Entry Form 110 to determine which group in Group Database 130 the buyer wishes to join. The buyer also specifies the number of units of the product desired. At step 604, the buyer is notified whether there is a problem with the information and prompts correction. At step 605, Group Database 130 is updated to reflect the buyer's interest.

10 5 The flow charts of FIGs. 7A and 7B illustrate the steps taken by Vendor Process Manager 114 to obtain information from Merchandise Submission Form 102 about products offered by vendors in response to products requested by buyers. As shown in FIG. 7A, at step 701 vendor registration is checked vendor identity authenticated. At step 702, a previously unregistered vendor submits the necessary information. At step 703, Vendor Process Manager 114 processes information from Merchandise Submission Form 102 and forwards the processed information. Specifically, the submitted information is checked for validity and completeness, and at step 204 the vendor is prompted to alert the system of any errors. The vendor supplies the quantity of the product offered and the offer price. At step 705, correspondence of the offered product to a requested product in Group Database 130 is verified and at step 706 the vendor is prompted if there is no match. If a requested product is matched in step 705, the price quoted by the vendor is compared to the current price at step 707. If there is no current price, or if the price is equal or superior to the price given by another vendor, steps 709 through 716 are executed as shown in FIG. 7B. If the offered price is not equal or superior to the current price, the vendor is notified in step 708 and allowed to set a lower price if desired.

20 FIG. 7B illustrates the steps for updating the system once the vendor submits a valid offer price in step 707. At step 709, the current price for the product in the Merchandise Description Database 128 is set to the price offered by the vendor. Next, the system checks to see if a sale record already exists for the product in step 710. If Sale Database 132 includes a record for the product, the operation skips ahead to step 715. If not, a sale is created by steps 711 to 714. Specifically, at step 711 a sale record is created in Sale Database 132 and the sale is marked Active to indicate that the actual selling process is underway. In step 712, the Hold Time and the Close Time for the sale are set relative to the current time. Since the Sale becomes Active when the first valid vendor arrives, the user

initiating the process cannot know exactly when to set the Hold Time and Close Time, both of which are therefore set relative to the Active Time. At step 713, all bids in Group Database 130 for the particular product are moved to Bid Database 134. Finally, at step 714, the merchandise description for the product is published. Alternatively, in step 715, where a sale record already exists Merchandise Description Database 128 is simply updated with the new price being offered by the current vendor. Step 716 follows either step 714 or 715 depending on whether a sale record existed, and the group members of the vendor's offered product are notified accordingly.

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The present invention therefore provides a novel method and system for buyer-initiated aggregating of buyers to obtain desired products at discounted prices. Although the present invention has been shown and described with respect to preferred embodiments, various changes and modifications lie within the spirit and scope of the claimed invention. Thus, the corresponding structures, materials, acts, and equivalents of all means or step plus function elements in the claims are intended to include any structure, material, or acts for performing the functions in combination with other elements as specifically claimed.

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What is claimed is:

- 1           1.     A computerized system for aggregating purchasing power  
2 comprising:  
3               a)     a Merchandise Interest Submission Form to obtain product  
4 information about a desired product from a first buyer;  
5               b)     a Merchandise Submission Form to obtain sale information for  
6 the product from a first vendor;  
7               c)     a Buyer Process Manager to store product information in a  
8 Merchandise Description Database;  
9               d)     a Vendor Process Manager to store sale information in a Sale  
10 Database; and  
11               e)     a Sale manager to match product information and sale  
12 information and generate orders for the product.
- 1           2.     The computerized system of claim 1, further comprising a Group Entry  
2 Form to obtain group bid information from a second buyer about the product and a  
3 Group Manager to store the group bid information in a Group Database.
- 1           3.     The computerized system of claim 1 further comprising an Invitation  
2 Manager to issue buying invitations to prospective buyers and accept buying  
3 invitations from prospective buyers.
- 1           4.     The computerized system of claim 3 further comprising an Invitation  
2 Submission/Acceptance Form to obtain information for the Invitation Manager.
- 1           5.     The computerized system of claim 2 further comprising a Bid  
2 Submission Form for obtaining bid information from a third buyer and a Bid Process  
3 Manager for storing the third buyer bid information in a Bid Database.

1           6.     The computerized system of claim 5, wherein the Bid Process  
2     Manager allows new bids, increased bids, decreased bids and withdrawn bids for  
3     the product between a Start Time and a Close Time.

1           7.     The computerized system of claim 6, wherein the Bid Process  
2     Manager prevents decreased bids and withdrawn bids after a Hold Time occurring  
3     between the Start Time and the Close Time.

1           8.     The computerized system of claim 1, wherein the Vendor Process  
2     Manager compares sale information from the first vendor and sale information from  
3     a second vendor and stores desired sale information in the Sale Database.

1           9.     The computerized system of claim 1, wherein the vendor and the  
2     buyer submit information to and receive information from the system by way of a  
3     wide area network.

1           10.    The computerized system of claim 9, wherein the wide area network  
2     comprises the internet.

1           11.    The computerized system of claim 2, further comprising a  
2     Merchandise Description Database to store product information, a Vendor  
3     Database to store vendor information obtained from the Merchandise Submission  
4     Form, a Bid Submission Form for obtaining bid information from a third buyer, a Bid  
5     Process Manager for storing the third buyer bid information in a Bid Database, and  
6     an Invitation Manager to issue buying invitations to prospective buyers and accept  
7     buying invitations from prospective buyers.

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1 12. A computerized system for aggregating purchasing power  
2 comprising:  
3 a) Buyer Process means for obtaining product information about a  
4 desired product from a buyer;  
5 b) Vendor Process means for obtaining sale information from a  
6 first vendor about the product; and  
7 c) a Sale means for matching product information and sale  
8 information and generating orders for the product.

1 13. The computerized system of claim 12, further comprising a Group  
2 means for obtaining group bid information from a second buyer about the product.

1 14. The computerized system of claim 12, wherein the Sale means  
2 compares sale information from the first vendor to sale information from a second  
3 vendor.

1 15. The computerized system of claim 13, further comprising a Bid  
2 Process means for obtaining bid information about the product from a third buyer.

1 16. The computerized system of claim 12, further comprising an  
2 Invitation means for issuing invitations to a second buyer and accepting invitations  
3 from the second buyer.

1 17. The computerized system of claim 13, further comprising a Bid  
2 Process means for obtaining bid information about the product from a third buyer,  
3 and an Invitation means for issuing invitations to a potential buyer and accepting  
4 invitations from the potential buyer.

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1 18. The computerized system of claim 15, wherein the first buyer submits  
2 information to and receives information from the internet.

1 19. A computer-implemented method for aggregating purchasing power  
2 comprising the steps of:

3 a) obtaining product information about a desired product from a  
4 buyer;

5 b) obtaining sale information from a first vendor about the  
6 product; and

7 c) matching product information and sale information and  
8 generating orders for the product.

1 20. The method of claim 19, further comprising the step of obtaining  
2 group bid information from a second buyer about the product.

1 21. The method of claim 19, further comprising the steps of obtaining  
2 sale information from a second vendor and comparing the sale information from the  
3 first vendor and the sale information from the second vendor.

1 22. The method of claim 20, further comprising the step of obtaining bid  
2 information about the product from a third buyer.

1 23. The method of claim 19, further comprising the steps of issuing  
2 invitations to a second buyer and accepting invitations from the second buyer.

1 24. The method of claim 20, further comprising the steps of obtaining bid  
2 information about the product from a third buyer, issuing invitations to a potential  
3 buyer and accepting invitations from the potential buyer.



1 25. A computer-readable medium containing instructions for controlling a  
2 computer to aggregate purchasing power by:

3 a) obtaining product information about a desired product from a  
4 buyer;

5 b) obtaining sale information from a first vendor about the  
6 product; and

7 c) storing and organizing the product information;

8 d) storing and organizing the sale information;

9 e) matching product information and sale information; and

10 f) generating orders for the product.

1 26. The computer-readable medium of claim 25, further comprising  
2 instructions for obtaining group bid information from a second buyer about the  
3 product.

1 27. The computer-readable medium of claim 25, further comprising  
2 instructions for obtaining sale information from a second vendor and comparing the  
3 sale information from the first vendor and the sale information from the second  
4 vendor.

1 28. The computer-readable medium of claim 26, further comprising  
2 instructions for obtaining bid information about the product from a third buyer.

1 29. The computer-readable medium of claim 25, further comprising  
2 instructions for issuing invitations to a second buyer and accepting invitations from  
3 the second buyer.

- 1           30.   The computer-readable medium of claim 26, further comprising
- 2   instructions for obtaining bid information about the product from a third buyer,
- 3   issuing invitations to a potential buyer and accepting invitations from the potential
- 4   buyer.

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**METHOD AND SYSTEM FOR BUYER-INITIATED AGGREGATING  
OF BUYERS TO OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES**

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**ABSTRACT**

10 A buyer-initiated process including posting the description of a product item  
of interest to a buyer and aggregating buyers who are interested in the same  
product or service. Vendors can then offer the desired product or service by  
posting the best price they can offer to the group of buyers. The preferred process  
creates direct competition between vendors who wish to win the business of the  
aggregated buyer group. Buyers benefit from obtaining the desired product at the  
best price available from all participating vendors

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**COMBINED DECLARATION FOR PATENT APPLICATION  
AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**METHOD AND SYSTEM FOR BUYER-INITIATED AGGREGATING OF BUYERS TO  
OBTAIN DESIRED PRODUCTS AT DISCOUNTED PRICES**

the specification of which (check one) X is attached hereto or \_\_\_ was filed on \_\_\_ as Application No. \_\_\_ and was amended on \_\_\_ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed  
Yes No

Number Country Day/Month/Year Filed

Number Country Day/Month/Year Filed

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I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) below.

Application Number	Filing Date
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Application Number	Filing Date
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I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

Application Number	Filing Date	Status: Patented, Pending, Abandoned
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Application Number	Filing Date	Status: Patented, Pending, Abandoned
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I HEREBY APPOINT THE FOLLOWING AS MY ATTORNEYS WITH FULL POWER OF SUBSTITUTION TO PROSECUTE THIS APPLICATION AND TRANSACT ALL BUSINESS IN THE PATENT OFFICE CONNECTED THEREWITH:

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Adam H. Tachner	40,343
J. William Wigert	24,582
Malcolm B. Wittenberg	27,028
Nathan P. Koenig	38,210
Ying Tuo	38,789

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or first inventor Sashidhar P. Reddi

Inventor's signature Sashidhar P. Reddi 07/02/99  
Date

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0946703.070799

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the Application of:

Sashidhar P. Reddi

Examiner:

For: METHOD AND SYSTEM FOR  
BUYER-INITIATED AGGREGATING OF  
BUYERS TO OBTAIN DESIRED  
PRODUCTS AT DISCOUNTED PRICES

Group Art Unit:

Serial No. {new}

Filed: Herewith

POWER OF ATTORNEY BY ASSIGNEE

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Sir:

ICOOP, Inc., Assignee of the above-identified application by assigned dated July 2, 1999, hereby appoints the members of the firm of CROSBY, HEAFEY, ROACH 7 MAY, a firm composed of Malcolm B. Wittenberg, Registration No. 27,028, Philip M. Shaw, Jr., Registration No. 25,376, J. William Wigert, Jr., Registration No. 24,582, Nathan P. Koenig, Registration No. 38,210, Adam H. Tachner, Registration No. 40,343, and Ying Tuo, Registration No. 38,789, as its attorneys with full power of substitution to prosecute this application and to transact all business in the Patent and Trademark Office in connection therewith.

Please direct all correspondence regarding this application to the following:

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Power of Attorney  
By Assignee

1

Serial No. {new}

The undersigned has reviewed the original or a copy of any documents(s) filed in the Patent and Trademark Office which evidence that the Assignee holds title to the above-identified application. The undersigned certifies that, to the best of Assignee's knowledge and belief, title to this invention is in the Assignee. 37 C.F.R. § 3.73(b).

ICOOP, Inc.

Dated: 07/02/, 1999

By: *Sashidhar P. Reddi*

Name: Sashidhar P. Reddi

Title: Chairman

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Power of Attorney  
By Assignee

2

Serial No. {new}



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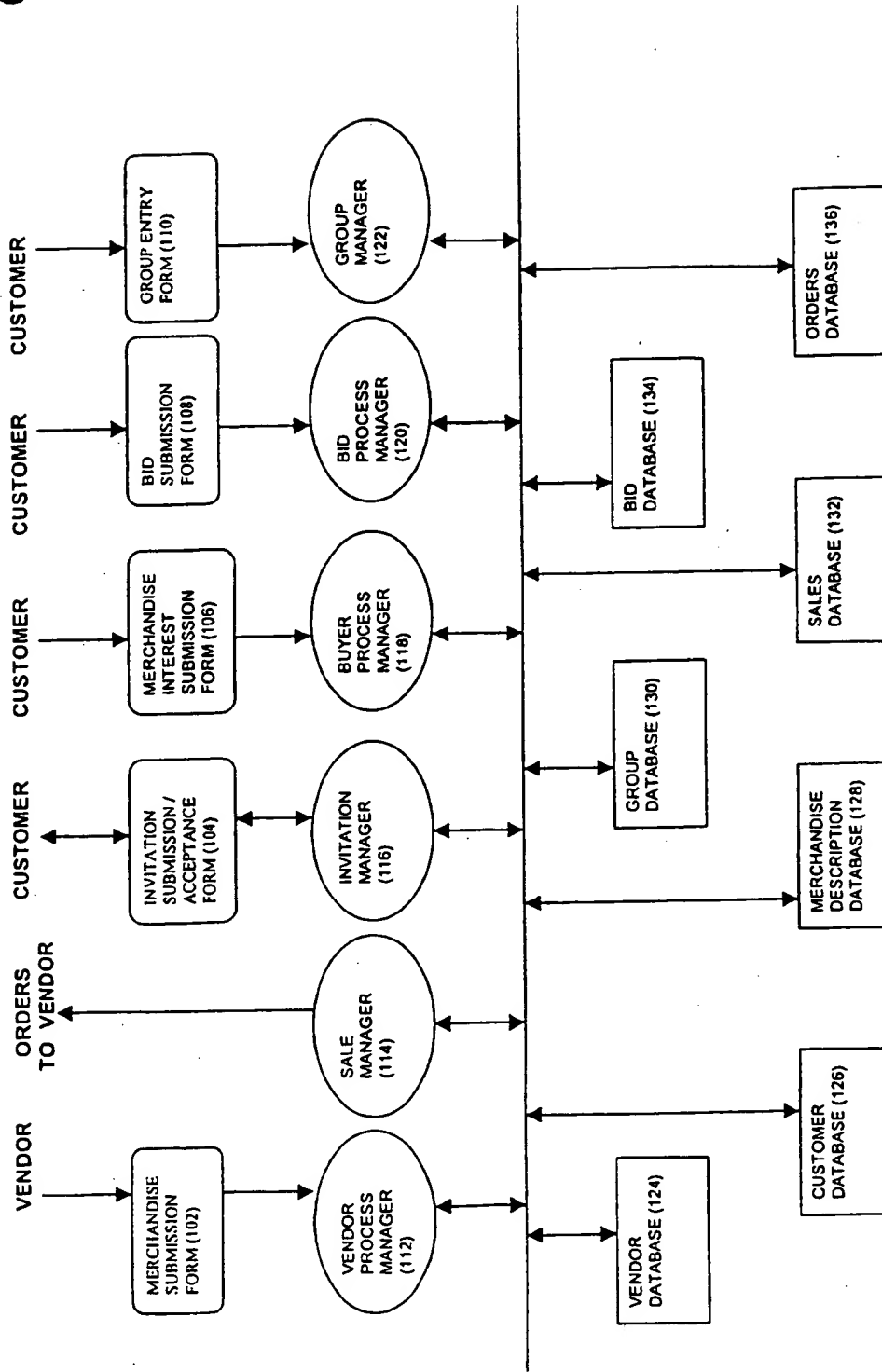
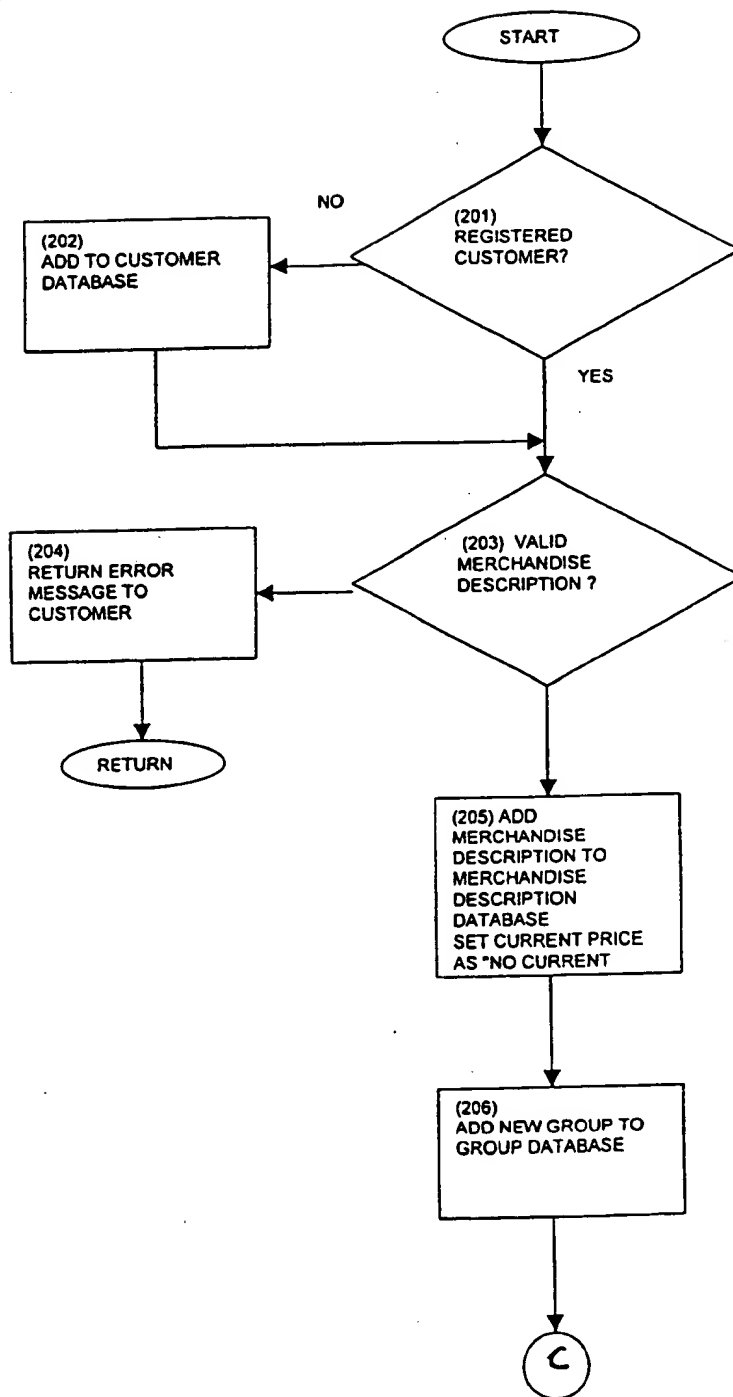


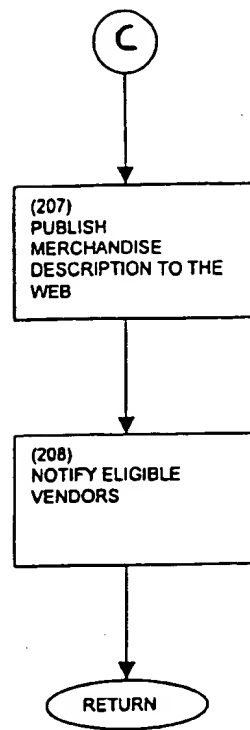
FIG. 1  
OVERALL SYSTEM

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**FIG. 2A**  
**BUYER PROCESS MANAGER**

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**FIG. 2 B**  
**BUYER PROCESS MANAGER**

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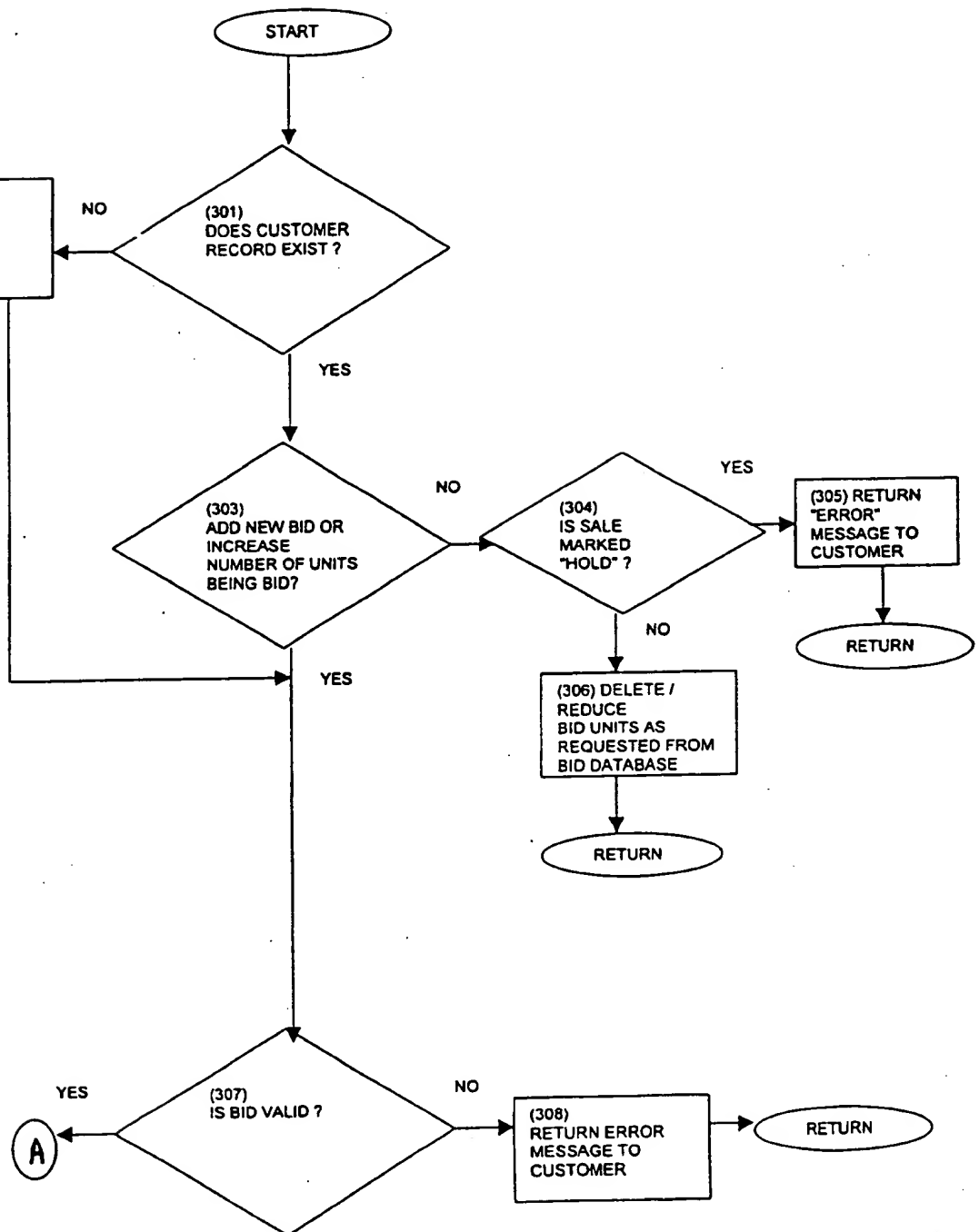
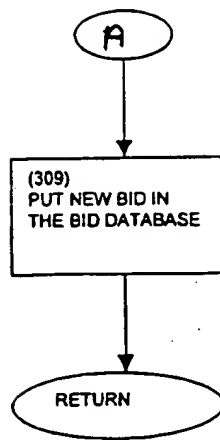


FIG. 3A  
BID PROCESS MANAGER



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**FIG. 3 B**  
**BID PROCESS MANAGER**

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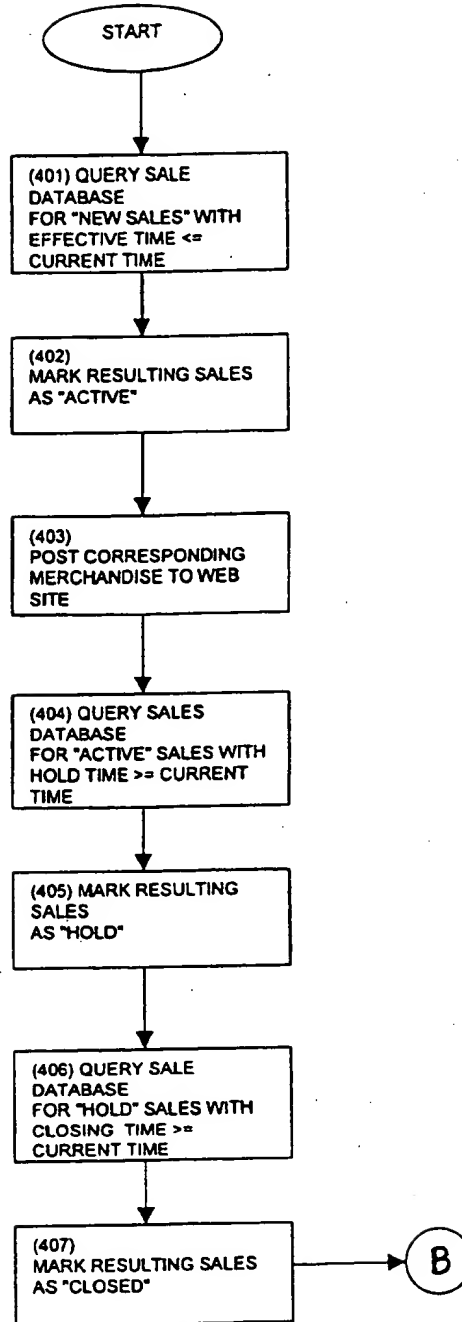


FIG. 4A  
SALE MANAGER

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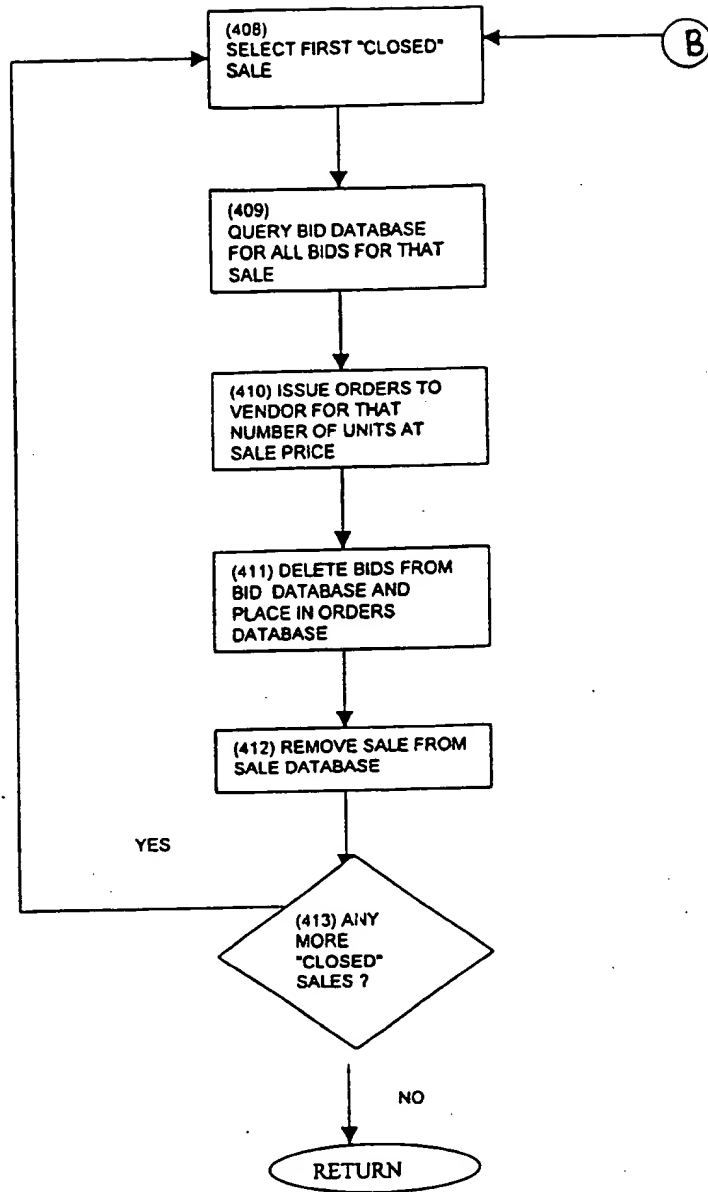


FIG. 4B  
SALE MANAGER

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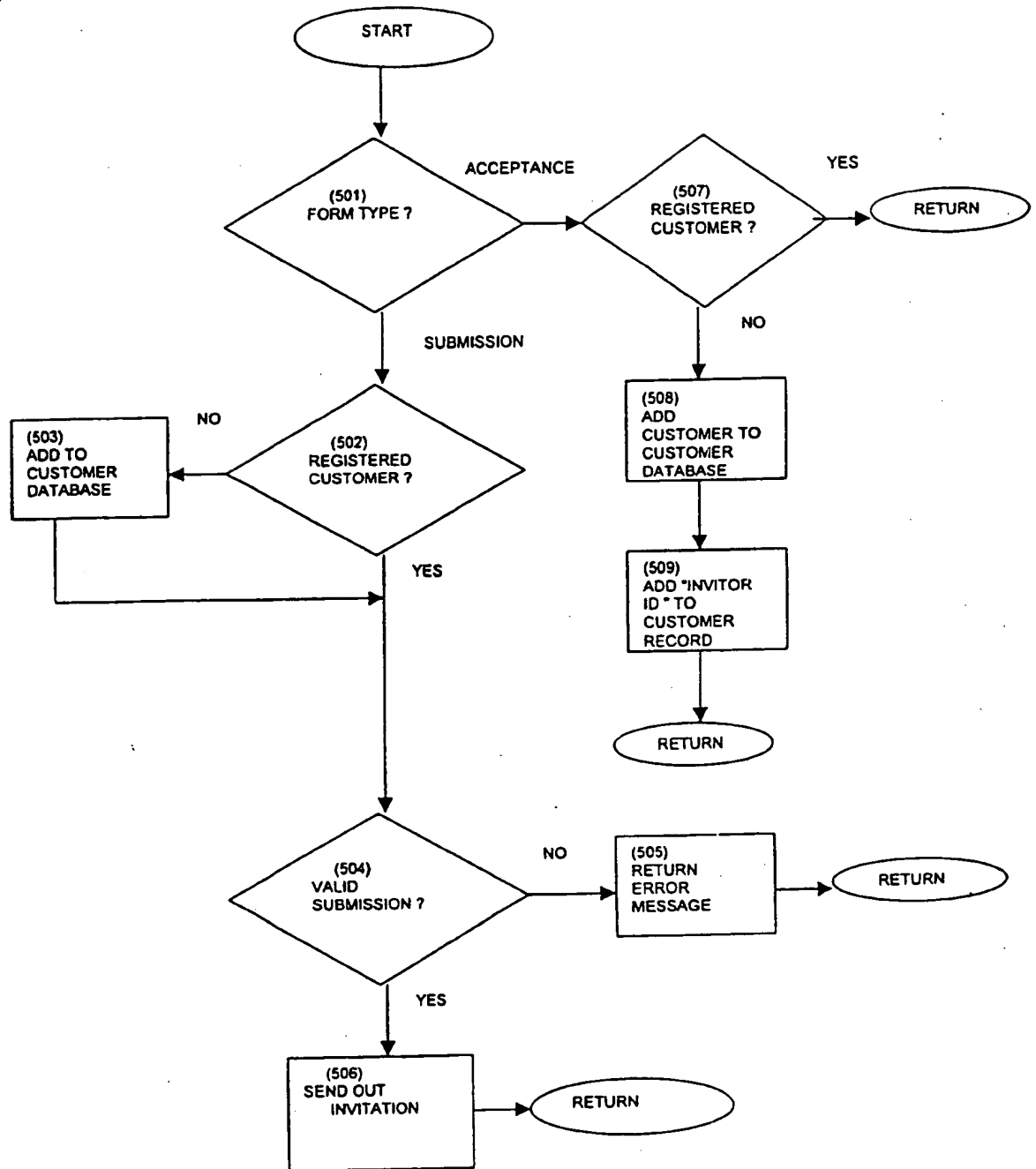


FIG. 5  
INVITATION MANAGER



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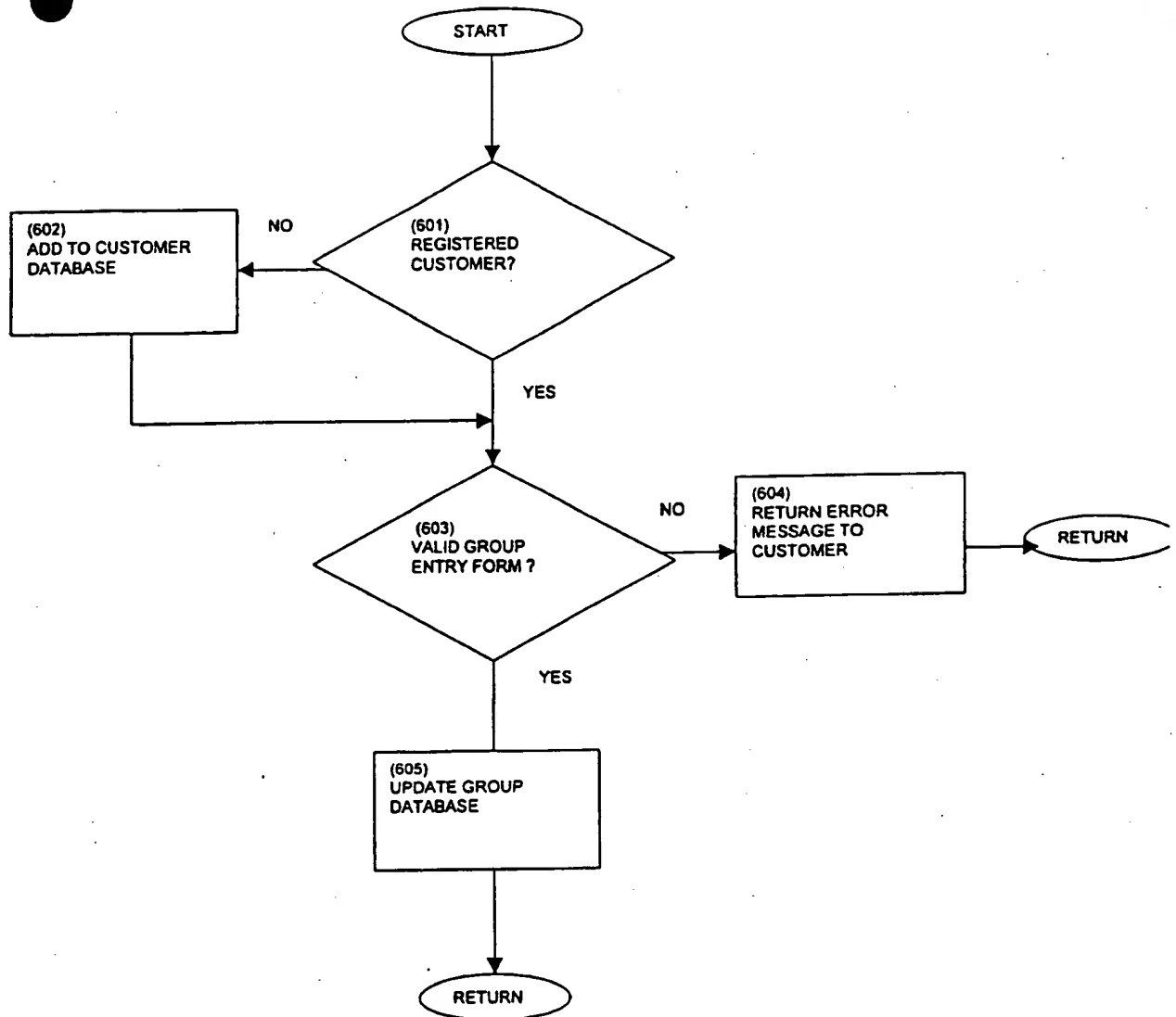
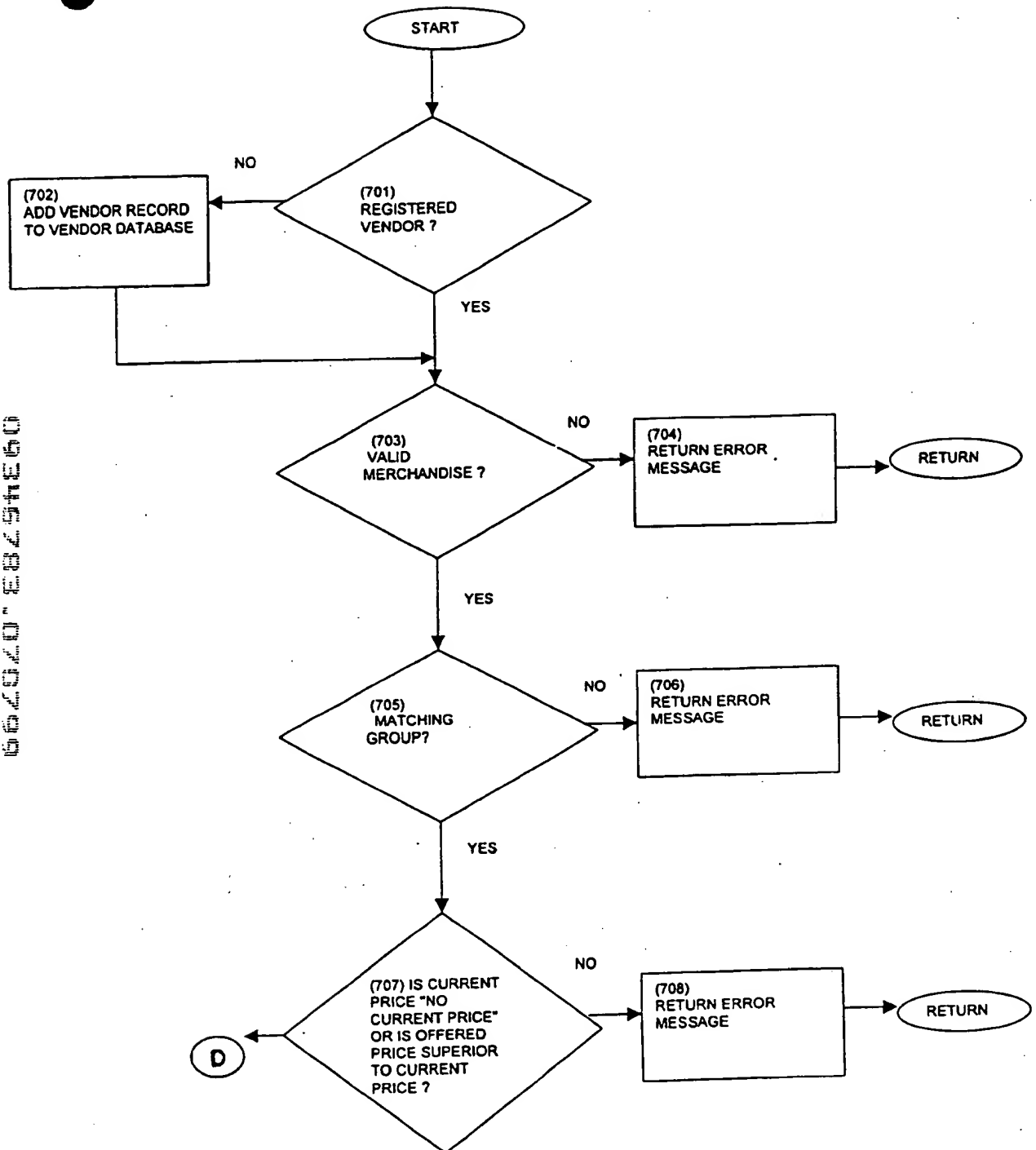


FIG. 6  
GROUP PROCESS MANAGER



**FIG. 7A**  
**VENDOR PROCESS MANAGER**

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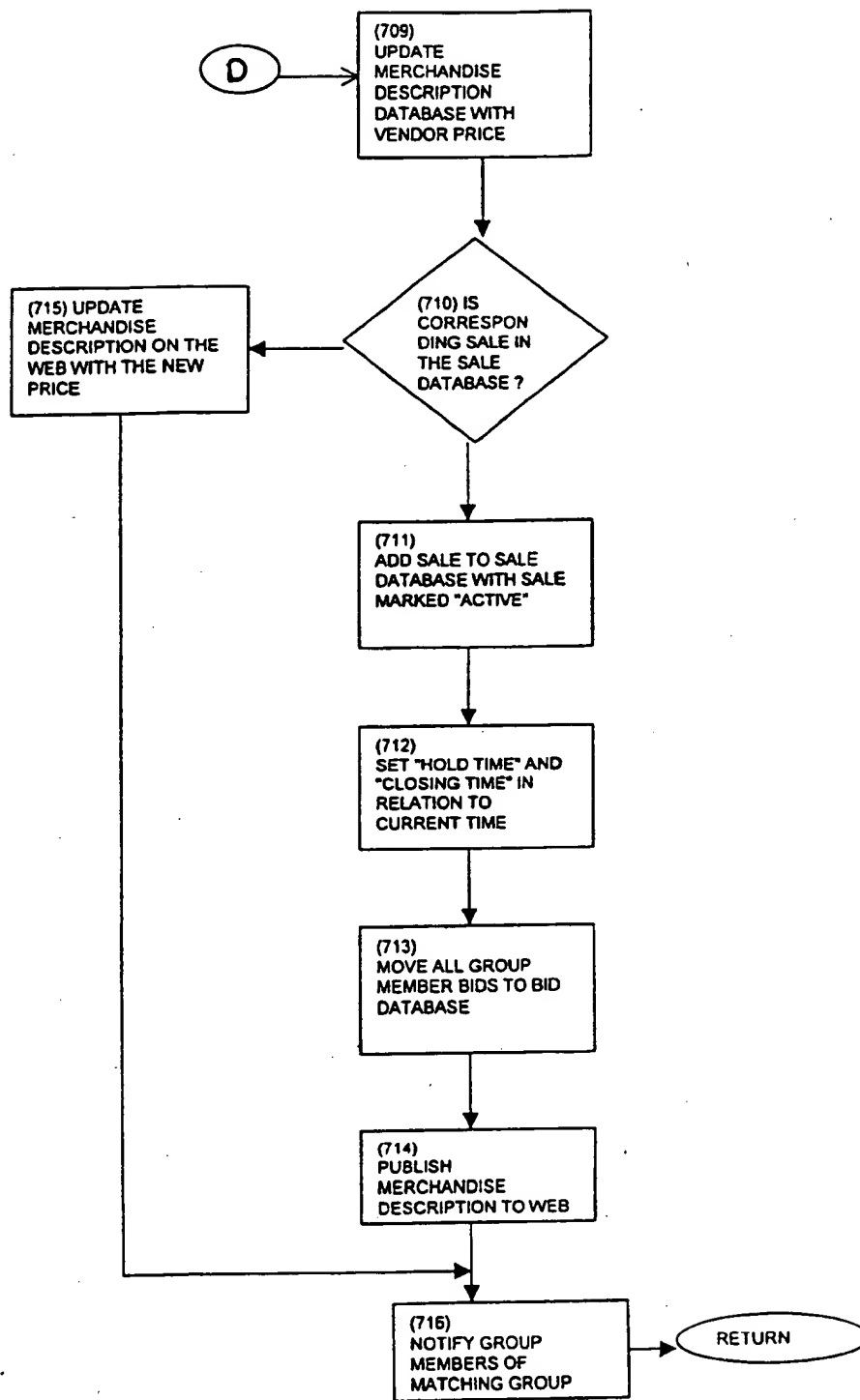


FIG. 7B  
VENDOR PROCESS MANAGER

P C



34, chemin des Colombettes  
**1211 GENEVE 20, SUISSE**

